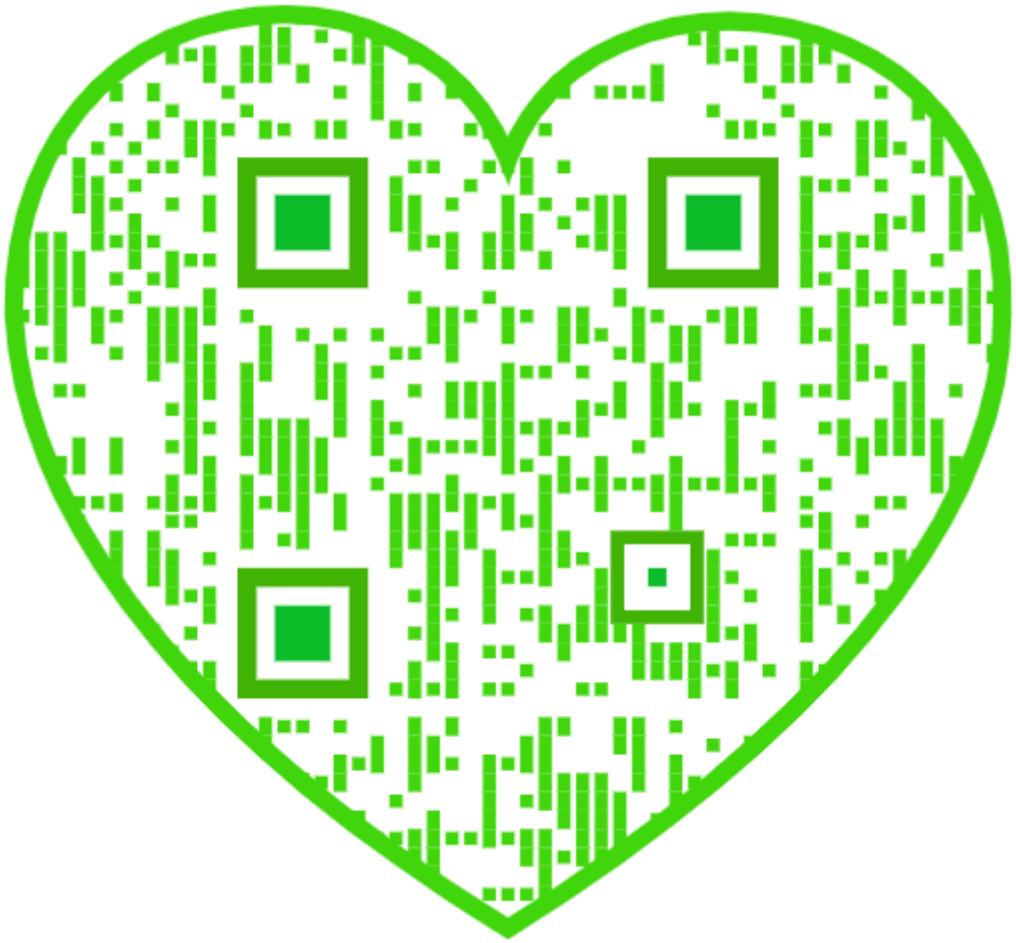
HYPNOTISM

HOW IT IS DONE,

ITS USES AND DANGERS

BY JAMES R. COCKE, M.D.



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BY

JAMES R. COCKE M.D.

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HYPNOTISM

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PREFACE.

It is a saying as old as the hills that "a little learning is a dangerous thing." While as a physician I am ready to admit the truth of this, I think that there is infinitely more danger to the common weal from the populace being densely ignorant of the phenomena which are daily occurring in their midst.

Hypnotism is at the present time exciting widespread interest, from scientific men, professional men, and laymen as well.

The great public is the bar before which all things shall be tried, their utility determined, and their faults ascertained.

Medical men, conversant with the history of medicine, must all admit that a general intelligence concerning medical matters is greatly needed by the public at the present time.

Hypnotism is freely discussed by only the few. It is marvelled at by the many. Around it the charlatan throws the sombre robe of mystery. The novelist finds in it a rich field of romantic opportunity.

Now it is my purpose, as far as I may, to

divest hypnotism of the supernatural, to show how it is done, and explain its rational basis. I shall also describe its dangers, and endeavor to outline its usefulness both in the medical world and in society, and in the latter part of my book shall describe the principal theories which are current about it.

I shall in the first part of this work quote mainly my own experience, for I have found hypnotism in the United States of America a very different thing from hypnotism in France.

The hypnotic states vary according to the temperament of the subject. The national characteristics also alter its manifestations. Especially is this true between northern and southern races.

I have hypnotized altogether about one thousand three hundred and fifty people. The greater part of these were Americans, some negroes, quite a number of French, a few Germans, and a few of the northern races, such as Danes, Russians, etc. It will be my purpose, then, to illustrate the differences in the hypnotic state, as they occur in the various nationalities.

So important do I believe this power of hypnotism to be that I wish every man, woman, and child of intelligence in this country could realize what a part it has played in the political and religious histories of the world. It has made prophets and seers of old, witches and

wizards at the beginning of our century, religious fanatics of our own day, of all conditions and kinds. Believing as I do in the importance of hypnotism, both as a healing agent and as a sociological factor, I shall endeavor, first, to tell what it is, how it may be accomplished, and try to outline some of its infinite varieties.

In the part devoted to the cure of disease, I shall endeavor to divest the subject of all technicalities, so that the lay reader may comprehend it, and to help him to form, if possible, an idea of the profound effect which the various mental conditions may have over his bodily well-being.

My plea, then, is for wider knowledge. To the goddess of Reason I humbly bow. She needs no crawling, cringing minions to do her homage. Knowledge is her swift messenger of peace. Goodness and Mercy are her white-winged angels, carrying glad tidings to all the world. True it is that life is a mystery, and yet the most mysterious and most marvellous thing we know of, is the fact that it is governed by law, and that every thought we have is a product of law. Every mental phenomenon of our own consciousness is immutably fixed by our subjective condition, plus our environments.

The human mind, presenting problems both of boundless study and endless utility, is the

grandest thing in all this universe. Men have prayed and suffered in the past, magic and witchcraft have been evoked to cure disease, and yet the suffering are ever with us. Wrecked lives on every hand attest the error which man has made in not understanding his mental states. Therefore I believe that general knowledge of any part of that vast science we call psychology will prove at the same time the most interesting and the most useful study that man can pursue.

I shall treat briefly the subject of thought-transference or telepathy ; shall give some of my own experiences, and also refer to published literature upon the subject.

As will be seen from what I have said I do not intend to confine myself strictly to the relation of hypnotism to medicine only, but shall endeavor to give a broader view of it in its application to every-day life.

HYPNOTISM.

CHAPTER I.

A DEFINITION OF HYPNOTISM AND ALLIED TERMS, TOGETHER WITH CONSIDERATIONS OF WHAT THE HYPNOTIC CONDITION IS.

I CANNOT but feel that the term "hypnotism" is a misnomer. I have never seen a hypnotized person whose condition was identical with that of sleep. Since this has come to be the commonly existing term, however, I use it in preference to magnetism, mesmerism, psychologism, etc.

In Foster's Encyclopædic Medical Dictionary, Volume III., page 1946, the following definition will be found of hypnotism. It is derived from the Greek word ὕπνος meaning sleep. The terms used to designate this condition are in French, hypnotisme, sommeil somnambulique provoqué (ou artificiel); Latin, hypnotismus; German, Hypnotismus; Italian, ipnotismo; Spanish, hipnotismo. Syn. Braidism. "An abnormal state into which some persons

may be thrown, either by a voluntary act of their own, such as gazing continuously with fixed attention on some small bright object held close to the eyes, or by the exercise of another person's will; characterized by suspension of the will and consequent obedience to the promptings of 'suggestions' from without. The activity of the organs of special sense, except the eye, may be heightened, and the power of the muscles increased. Complete insensibility to pain may be induced by hypnotism, and it has been used as an anæsthetic. It is apt to be followed by a severe headache of long continuance, and by various nervous disturbances. On emerging from the hypnotic state, the person hypnotized usually has no remembrance of what happened during its continuance, but in many persons such remembrance may be induced by 'suggestion.' About one person in three is susceptible to hypnotism, and those of the hysterical or neurotic tendency (but rarely the insane) are the most readily hypnotized.

Hypnotization, the inducing of hypnotism.

Hypnotized, in a state of hypnotism.

Hypnotizer, one who induces hypnotism."

Methods of Inducing Hypnotism.

The hypnotic state can be produced in one of the following ways. First, command the sub-

ject to close his eyes. Tell him that his mind is a blank. Command him to think of nothing. Leave him a few minutes; return and tell him that he cannot open his eyes. If he fails to do so, then begin to make any suggestion which may be desired. This is the so-called mental method of hypnotization.

Secondly, give the subject a coin or other bright object. Tell him to look steadfastly at it and not to take his eyes from it. Suggest that his eyelids are growing heavy, that he cannot keep them open. Now close the lids. They cannot be opened.

This is the usual method employed by public exhibitors. A similar method is by looking into a mirror, or into a glass of water, or by rapidly revolving polished disks, which should be looked at steadfastly in the same way as is the coin, and I think tires the eyes less.

Another method is by simply commanding the subject to close his eyes, while the operator makes passes over his head and hands without coming in contact with them. Suggestions may be made during these passes. This is the so-called Mesmeric method.

Fascination, as it is called, is one of the hypnotic states.

The operator fixes his eyes upon those of the subject. Holding his attention for a few minutes the operator begins to walk backward;

the subject follows. The operator raises his arm; the subject does likewise. Briefly, the subject will imitate any movement of the hypnotist, or will obey any suggestion made by word, look, or gesture, suggested by the one with whom he is *en rapport*.

A very effective method of hypnotizing a person is by commanding him to sleep, and having some very soft music played upon the piano, or other stringed instrument. I have obtained some curious effects in this way, to be noted later. Firm pressure over the orbits, or over the finger-ends and root of the nail, for some minutes may also induce the condition of hypnosis in very sensitive persons.

Also hypnosis can frequently be induced by giving the subject a glass of water, and telling him at the same time that it has been magnetized. The wearing of belts around the body, and rings around the fingers, will also, sometimes, induce a degree of hypnosis, if the subject has been told that they have previously been magnetized or are electric. The latter descriptions are of the so-called physical methods of inducing hypnotism described by Dr. Moll.

The hypnotic state frequently supervenes in persons sitting in a spiritualistic séance, or at a "circle" as it is called. I shall reserve a chapter for the subject of auto-hypnotism.

The physiological illusions produced upon

the different systems of the body vary much, according to the method used, and the degree of hypnosis induced. Also they vary widely in different individuals of different temperaments. I have seen a profound attack of hysteria induced in a woman with red hair and blue eyes, from simply looking at a coin, while her brunette sister was easily placed in a deep trance, so that an excrescence was removed without pain from her finger.

Authors differ greatly in their statements about the average susceptibility of the masses to hypnotism. Some state that about 70 per cent., others that 80 per cent., others that 90 or more per cent. are susceptible of being hypnotized, if time enough were only given. I have found the pre-requisite to hypnotism to be voluntary obedience for a few minutes on the part of the subject. Briefly, then, hypnotism may be induced by impressing profoundly the mentality through all of the senses. The intellect, the reason, the will, the emotions, are all children of the senses, ministered to, taught, and trained by the external phenomena of the universe.

Those conditions which we term "subconscious" bear indeed curious and distorted relations to the ordinary conscious states, and yet they are related to, and not different in kind from, the phenomena common to conscious life.

The following is a description of the usual appearance of a person who is being hypnotized by the sensory method.

Have the subject look fixedly at a bright object held about fifteen inches from the eyes. Tell him that he must think only of the object at which he is looking. Hold a bright coin in one hand, place the other hand over the radial artery, upon the wrist of the subject, and watch the pulse carefully. If the subject is a good one, in from three to four minutes the heart will beat more rapidly, the pulse will become more bounding, and the pupils of the eyes will dilate. When these changes take place in the pulse and pupils, tell the subject that his consciousness will be absorbed. Insist that he cannot hold his eyelids open, and command him to close them. Then suggest sleep. The subject's face is generally flushed. The expression is set. Then the subject is commanded to relax his muscles, and suggestions are made according to the results desired. If I am treating a man suffering with some form of delusional insanity, I tell him that his delusion is a delusion, and that when he comes out of the hypnotic condition, his mind will be clear, and that the fancy will trouble him no more.

If I wish any portion of the body to become numb for a surgical purpose, I constantly

stroke that portion of the body, and state that it will be insensible to pain. If I wish to produce general anæsthesia, I make passes all over the body. I have found by experimenting, that it is sometimes better to make a part rigid by suggestion, when a profound degree of anæsthesia is desired.

It is difficult to express in words the great variety of effects, sensory and motor, which can be produced by suggestion, upon a hypnotic subject, when he is in the hypnotic state. Beings which are children wholly of his imagination, will exist for him as conscious entities. His personality may be changed, and he will for the time, think, act and live another man. The various faculties of the mind may be, each in their turn, rendered abnormally acute. The speech centres may act in such a way that a man who has naturally a poor command of language, will, when hpynotized, converse volubly or deliver an address, speaking fluently.

The emotions may be played upon by suggestions, like an instrument of music by a master's hand. Joy, sorrow, grief, despair, love and hate, may be made to follow each other and appear in combination with marvellous rapidity. The man may be made to believe that he is a broomstick, a pitcher, chair, or carpet, or any other inanimate thing, and to act his part with wonderful skill.

Prof. James, of Harvard, says in effect that one needs only to see a person do these things to be convinced that the subject is not acting his part for the purpose of deception. Could they act such a part when in the normal state, they would have long since found their true place upon the stage.

One cheek may be made pale while the other is red, one hand cold while the other is warm, and in good subjects even the pulse will beat slowly or more rapidly at the command of the operator. The states vary as do the phenomena obtained.

Some subjects will have a mocking smile upon their faces, and remember all that has transpired when the hypnotic state has been suspended. I had one man tell me that he did it all for amusement, and that he was not in any way under my control, but I soon convinced him of his mistake, by hypnotizing him one day and telling him that he had drank a number of flies with his cup of coffee, for he immediately vomited his whole breakfast.

It is said by M. Focachon, an apothecary, at Charmes, that blisters may be made upon the skin by applying several postage stamps and telling the subject that he is being burned.

It does not seem to me that in the experiment by Focachon all chance of fraud was excluded, as the postage stamp mentioned could

have been impregnated with one of several substances which would have produced a blister from its action on the skin, independently of hypnotism.

Pain in wounds may certainly be relieved, and another French authority claims that wounds may be inflicted on a person while in the hypnotic state, without subsequent inflammation taking place in them. This has not been my experience. Neither have I been able to produce blisters by means of an ordinary piece of metal as has been described by another writer.

I have recently made a very curious experiment in order to determine whether a person paralyzed by hypnotic suggestion would act in the same way as he would if he were paralyzed from organic disease of the brain.

A good subject was thoroughly hypnotized. I told him that he would have a stroke of apoplexy, and that he would fall, and that when I commanded him to rise, his left side would be entirely paralyzed. He fell at the word, and when I told him to get up the left arm and leg were paralyzed by suggestion. The face was drawn to the opposite side from the one paralyzed, exactly after the manner of one suffering from a stroke of apoplexy, when blood is first effused into the brain. I commanded this subject to walk, and had his gait carefully studied

Every good physician knows that a person suffering from that form of paralysis known as hemiplegia swings the paralyzed side forward in walking. This subject when commanded to walk, dragged his left leg after him, his left arm hung limp at his side, but he did not swing the body after the manner of those suffering with paralysis from organic brain disease. This proves conclusively that paralysis induced by suggestion does not affect the psychic life of the subject in the same way that paralysis will affect the consciousness when due to organic disease.

I have purposely left the theories of hypnotism for the latter part of the book, wishing to make its phenomena clear to my readers.

The followers of the school at Nancy describe a flushed face and other physical phenomena as common to, if not a necessary part of, the hypnotic state. I think these phenomena occur more frequently when the coin or other bright object is used to hold the attention of the subject.

Sleeping persons can be hypnotized. Conversely, the hypnotic state can be succeeded by a natural sleep. I have frequently induced hypnotism in a sleeping person by simply pressing the fingers and making rapid suggestions. In about two minutes the hypnotic state will supervene, and the subject will obey any sugges-

tion made to him. I have also succeeded in hypnotizing a woman when suffering from that condition known as catalepsy, and made her breathe more rapidly and talk to me when she was insensible to all others in the room.

A subject may be hypnotized by one operator when he cannot be by another. The subject under the control of the operator will usually obey him only, and yet he can, by suggestion, be transferred to another hypnotist while in the hypnotic state. Or a person who cannot be hypnotized by one hypnotizer, afterward having been hypnotized by another, is generally susceptible to the first one in the future.

Children under three years of age, and violently insane people, are difficult to hypnotize, because it is not easy to hold their attention. The same is true of idiots.

Are there any pre-requisite qualities in the person which particularly fit that person for a hypnotic sensitive? French authorities, like Charcot, claim that hypnotism is more frequently induced in the hysterical than in those who have a more normally-balanced mentality. I shall have occasion to report a number of cases of hysteria in this book, as it bears a very important relation to all psychic abnormalities. The condition, or multiplicity of conditions, constituting the disease ridiculously called "hysteria," varies so much that volumes would be re-

quired to enumerate them. Suffice it to say, that hysteria is a diseased condition of the psychic life in which the ego is abnormally prominent. A hysterical person may be vivacious, may laugh and cry in rapid succession, may become paralyzed in one or another part of the body, and recover rapidly. He may also be so abnormally sensitive that sight, hearing, taste, and smell will be painfully acute, or one of these senses may become wholly absent, or be in a perverted state. It is impossible to draw the line between hysteria and many forms of emotional insanity.

Now, from a prolonged study of the subject, I believe that there are two forms of hysteria, namely: latent and active. I believe that there is a certain amount, nay, I may say a large amount, of latent hysteria in every one. When the control of the will is withdrawn, these lower states of our consciousness show themselves in an infinite variety of ways. A hypnotized patient, as I have said, can be made numb in any part of the body at the will of the operator. You can cause him to feel pain in any portion of the body in the same way that you can cause any or all of the manifestations of consciousness to be very acute, or very sluggish.

In other words, the hypnotic state develops that latent subconscious condition, in which

one faculty or sense may be made to predominate, or in which they may be all, for the time, extinguished. This is exactly what occurs in a profoundly hysterical person, independently of the hypnotic state.

Hysterical persons can be more easily hypnotized only when their attention can be held for a sufficient length of time. When a hysterical state has so disordered the faculty of concentration as to make prolonged attention impossible, hypnotism cannot be induced. Dr. Moll truly says that the element of contradiction is very strong in the character of many hysterical persons, and that they will not give the requisite degree of attention for successful hypnosis.

Awakening from, and the Duration of, the Hypnotic State.

Subjects will usually awaken of their own accord in a few minutes, from the lighter degrees of hypnosis, or, in some cases, in even a few seconds. The more profound hypnotic states will continue for some time when they are not interfered with by the hypnotist. There are almost as many methods of awakening a subject from the hypnotic state as there are of putting him into it. A subject who is hypnotized will usually awake when commanded to do so. I frequently command him to count

twelve, and tell him to wake up when the word ten is spoken. He may also be awakened by simply telling him that he is "all right" and to open his eyes. The application of cold water is also said by some writers to arouse subjects readily.

If the hypnotic state has been induced by passes over the body, passes in the opposite direction will frequently arouse the subject. I have never had difficulty in arousing a subject from the hypnotic sleep.

Things which will Prevent the Production of Hypnotism.

Disturbing noises at the first experiment have power to prevent hypnosis. They distract the attention, and thus interfere with the mental state necessary for hypnosis. Later, when the subject has learned to concentrate his thoughts, noises are less disturbing. But in hypnotic experiments the most absolute avoidance of any sign of mistrust by those present is necessary. The least word, a gesture, may thwart the attempt to hypnotize. As the mood of a large company is often distrustful, even as a whole generation is also sometimes sceptical, so the great variations in susceptibility to hypnosis which have shown themselves at different times and places are explicable. It is not surprising that at one séance six persons, one after an-

other, are hypnotized, while at other séances six persons will all prove refractory.

The American people certainly seem less susceptible to hypnotism, and as a rule are more sceptical about it, than are their brethren across the water.

CHAPTER II.

THE EFFECT OF HYPNOTISM UPON THE SPECIAL SENSES.

HYPNOTISM, as has been already mentioned, can produce total insensibility, both to touch and to pain, over any part or over the whole of the body. Painful affections such as functional neuralgias may also be relieved and certain of them cured by hypnotism. I shall devote a special chapter to the subject of hypnotism in surgery.

The Effect of Hypnotism upon the Sense of Sight.

This is one of the most curious of all phenomena occurring in the hypnotic state. If a person who is hypnotized is told to open his eyes he will do so, and seeing, will perceive only as the operator may suggest. Prof. James mentions some very interesting experiments, which prove that blindness which can be induced by suggestion is purely psychic, and not due to any effect directly upon either the centre of

sight in the brain or locally upon the eye. The hypnotized subject will become psychically blind at the operator's will. If a line is made upon a clean blackboard, the hypnotized subject, if commanded to do so, will tell you that the blackboard is still a blank. Place a number of lines in any position you please around the first one. The hypnotized subject will still insist that the line you first made upon the blackboard is not there. Prof. James argues that the fact of the hypnotized subject refusing to recognize the existence of a line, is an evidence that the subject saw the line, but that his consciousness refused to recognize its existence.

The following are Prof. James' own words :

" Make a stroke on a paper or blackboard, and tell the subject it is not there, and he will see nothing but the clean paper or board. Next, he not looking, surround the original stroke with other strokes exactly like it, and ask him what he sees. He will point out one by one the new strokes, and omit the original one every time, no matter how numerous the new strokes may be, or in what order they are arranged. Similarly, if the original single line, to which he is blind, be doubled by a prism of sixteen degrees placed before one of his eyes (both being kept open), he will say that he now sees one stroke, and point in the direction

in which lies the image seen through the prism.

"Another experiment proves that he must see it in order to ignore it. Make a red cross, invisible to the hypnotic subject, on a sheet of white paper, and yet cause him to look fixedly at a dot on the paper on or near the red cross; he will, on transferring his eye to the blank sheet, see a bluish-green after-image of the cross. This proves that it has impressed his sensibility. He has felt but not perceived it. He had actually ignored it, refused to recognize it, as it were."

I trust the reader will bear in mind these two experiments, as they will throw much light upon the theory which later I shall advance, to explain the physiology of the hypnotic state.

The Effect of Hypnotism upon the Sense of Hearing.

All sorts of hallucinatory impressions may be produced upon the sense of hearing as well as upon the sense of sight. The subject's hearing may be made abnormally acute, or he may be made to hear things which do not exist. This peculiar subconscious condition, when not interfered with by suggestion, renders the sense of hearing peculiarly, nay, pathologically, acute. A hypnotized subject is much more sensitive to music. It has for him

a deeper meaning than for the normal mind. There is, indeed, yet unexplored a vast field for experimentation in this direction. The peculiar effect of music on hypnotized subjects is illustrated in the following extract in the "Medical News," July 28, 1894, from the article by Alfred S. Warthin, Ph.D., M.D., of Ann Arbor, Michigan.

He says that while in Vienna he observed musical enthusiasts closely while listening to a performance of one of Wagner's great musical dramas. From his observation he reached the conclusion that these people were in a self-induced hypnotic condition, and put forward their subjective natures to such an extent that they predominated over, and for the time, subjugated their objective consciousnesses. From these observations it occurred to him to try the effect which music would have upon hypnotized subjects. He says of his first subject that he was a physician, and of an emotional nature, and easily hypnotized. Wagner's "Ride of Walküre" was played from the piano score. The subject's pulse became more rapid, fuller and of increased tension. As the music continued the pulse rate rose from 60, his normal rate, to 120 per minute, becoming very full, quick and of low tension; at the same time the rate of respiration was increased from 18 to 30 per minute. The subject's face showed great

mental excitement; his whole body was thrown into motion; the legs were drawn up and the arms tossed into the air, at the same time the whole body was bathed in profuse sweat. On being awakened the subject said that he did not perceive the music as sound but as feeling, and that this feeling was a sensation of wild excitement, brought on by "riding furiously through the air." This state of mind brought up before him, in the most realistic and vivid manner imaginable, the picture of the ride of Tam O'Shanter, which he had seen years before; that almost immediately this became real to him, and in some way he took part in the wild chase, not as a witch, devil, nor as Tam, but in some way his consciousness was spread through every part of the scene, being of it, and yet playing the part of a spectator.

Dr. Warthin's second subject was a young man twenty-two years of age, of average musical and emotional development. Was not so easily hypnotized, and did not pass into such a deep state of hypnotism. The same music was played with practically the same result, the second subject experiencing, as did the first, the sensation of riding through the air. The pulse rate also rose from 70 to 120 beats per minute. The same experiment was tried upon a number of subjects, and while all of them experienced the sensation of riding

through the air, only one of the number knew that the music was Wagner's famous "Ride of Walküre." To him it always expressed and pictured the wild ride of the daughters of Wotan, the subject taking part in the ride.

It is here to be noted that the subjects could not tell afterward what music had been played to them while in the hypnotic state, and that the same composition played to them while in the normal state produced no impression comparable with that received in the hypnotic condition, and was without physiologic effect.

Slow music (The Walhalla motif) produced at first an opposite effect upon the pulse ; later almost doubling the rate and lowering the tension. To the subject it gave a feeling of "lofty grandeur and calmness," and this, in turn, brought back the memory of mountain-climbing made years before, together with the mental state produced by the contemplation of a landscape of "lofty grandeur." Another totally different piece of music was played, it being very intense and ghastly. It was the music of the scene in which Brünnhilde appears to summon Sigmund to Walhalla. It produced a very marked change in the pulse, which was made slow, irregular in rhythm, and very small. The respirations were decreased in rate, and became gasping. The face of the hypnotic subject became pale, and covered with cold per-

spiration. The feeling described by him was that of death. No definite impression could be described.

In this article are related many more interesting experiments, but want of space forbids my quoting them.

The fact that music can produce such remarkable effects upon hypnotized subjects gives to the subjective consciousness a psychological importance which it has never occupied before, and undoubtedly the future will prove that this field is rich with yet undiscovered treasures.

Many sensations, many vague memories of some forgotten day, will be brought up from the depths and recesses of this wonderful land of dreams and will be studied, and will enrich colder thought with radiant poetic gems.

Hallucinations and delusions of taste and smell in a hypnotized subject can also be produced by suggestion, but they possess no especial interest here. The power of speech may be wholly abolished or partially inhibited, and certain words will be forgotten at command while the hypnotic state lasts. Also the memory of a printed page or the memory of certain letters may be forgotten.

I once hypnotized a man and made him read all of his a's as w's, his u's as v's, and his b's as x's. I added suggestion after suggestion so rapidly that it would have been impossible for

him to have remembered simply what I said and call the letters as I directed. Simulation was in this case impossible, as I made him read 15 or 20 pages, he calling the letters as suggested each time they occurred.

I have shown that hypnotism may act upon the five senses of the body as well as upon the emotions.

CHAPTER III.

AUTO-HYPNOTISM.

One can induce the hypnotic state upon himself by the exercise of the same faculties which produce it when it is brought about by the suggestion of another.

A number of my subjects will pass into a deep trance and remain so for a period of time ranging from five minutes to two hours, if they look at a bright object, a bed of coals, or at smooth running water. They have the ability to resist this state or to bring it at will. Many of them describe beautiful scenes from nature, or some mighty cathedral with its lofty dome, or the faces of imaginary beings, beautiful or demoniacal, according to the will and temper of the subject. That this power of auto-hypnotism is exercised by nearly every one I am quite sure. Who does not look at a tiny picture and in the minute face see again reflected the beaming countenance, life-size, of some dear one? Again, look at the pictures of Michael Angelo, and those bits of paint reveal

the enlarged ideal soul of the artist ; or witness a play upon the stage, and if it is well done the true lover of art will become wholly absorbed in the feelings and thoughts of the players, and forget that it is all a scene on the stage, while his whole nature goes out in sympathy for the afflicted, in admiration for the noble, and in hatred and contempt for the base ; or look at a bed of coals on a winter's night, while the winds moan. Does not the maiden see reflected the face of her lover, and fancy that the burning coals are building for her a home radiant with light and full of happiness ?

I could cite an experience from every part of man's emotional life which would prove beyond a doubt that the things we usually see are not measured, as they really are by our perceptions, but that our subjective consciousness gives an artistic tinge to what we see, as does the artist, when he executes with paints upon canvas, a representation of nature.

Auto-hypnotism has been one of the prominent factors in the religious history of the world. The prophets of old dreamed dreams and saw visions. Swedenborg by his overwrought brain had depicted visions of a certain existence, and so strong were these impressions upon him that he believed himself inspired, and that he possessed a key to the word of God. The same is true of many of the saints of the early

Christian church. This is the power at work in the noisy revivals which occur very frequently in the South and West. I have seen a young woman first become convinced that she was a sinner, then, concentrating her whole mind upon the thought, induce in a few minutes a condition of auto-hypnosis.

The dervishes as they dance and wound themselves, also present the physical appearances of a certain stage of hypnosis. The same condition of things is found frequently among the Shakers at their meetings. The same thing exists in a mad-house when a monomaniac dwelling upon one thing so concentrates his attention that he is oblivious to all but the predominating idea. Again, in the convent and cloister, among the ascetics to be found there, you may observe the same physical and mental characteristics.

Some persons, of course, are more susceptible to auto-hypnotism than others, yet all rational beings can at will, within certain limits, render themselves insensible to the external world, and live only in the depths of their natures. How is this induced? By everything, by every condition, which will so absorb our faculties as to enable us to assume a semi-conscious condition of auto-hypnotization. I have seen among a certain religious sect persons who believed that, for the time, their personality was

changed to that of another, living or dead. In this hypnotized state they sometimes imagine that a person, living or dead, controls their minds and hence they impersonate the individual whom they suppose has control of their bodies. Notably, one man who believed that he was controlled by an Indian made a ridiculous spectacle of himself on one occasion, by talking in a manner in which he supposed an Indian would talk. He also jabbered an unintelligible jargon, and informed me that it was the language of a Cherokee chief. Bringing a person to him who understood the Cherokee language very well, the man was highly indignant when he was told that his jargon was not the language of the Cherokee or any other language that could be determined.

A curious thing about these self-hypnotized subjects is that they carry out perfectly, in this condition of auto-hypnotization, their own ideals of the personality with whom they believe themselves to be possessed. If their own ideals of the part they are playing are imperfect, their impersonations are ridiculous in the extreme. One man I remember, believed himself to be controlled by the spirit of Charles Sumner. Being uneducated, he used the most wretched English, and his language was utterly devoid of sense. While, on the other hand, a very intelligent lady who believed herself to be

controlled by the spirit of Charlotte Cushman personated the part very well.

It is not my purpose in this work to deal with other than questions concerning hypnotism. One of the most difficult parts of the study of hypnotism is the one that we are now studying, that of self-induced hypnosis. From many cases which I have seen in the hospitals for the insane, I am convinced that a number of persons who are thought to be suffering from delusional insanity, are simply in a state of auto-hypnosis.

Another interesting case was that of a man who believed that he was being hypnotized by a man at some distance whom he had never seen. He would sit down and talk for hours, if one would let him, of the various conditions which he supposed the operator was producing upon him. The self-induced hypnotic state can be carried to a very great degree. I can hypnotize myself to such an extent that I will become wholly unconscious of events taking place around me, and a long interval of time, say from one-half to two hours, will be a complete blank. During this condition of auto-hypnotization I will obey suggestions made to me by another, talking rationally, and not knowing any event that has occurred after the condition has passed off.

I have made studies in order to determine if

there were any differences between the condition of self-induced hypnotism and hypnotism induced by another. There are minor differences. The mental and introspective life is stronger in the hypnotic state when induced by one's own will. The imagination takes wilder flights. The poetic fancies weave more exquisite garlands of thought, or, again, the depths of despair and gloom may be induced, if there is anything in one's environment to suggest it, while in the condition of self-hypnotization.

Kingsley in his "Hypatia" accurately describes this mental state, although he does not call it by name.

This condition of self-hypnotization is allied to, if not identical with, the so-called ecstatic state, frequently spoken of by writers. Probably a large number of the visions and prophecies to be found in Eastern literature are the product of this condition of the mind. Fasting and long hours of work, by increasing the power of imagination, and the general sensitiveness of the nervous system, increase the susceptibility of a subject to auto-hypnotization, and, at the same time, in such subjects the condition of hypnosis is much deeper. An impoverished blood acting upon the poorly nourished brain, assists in producing many of the visions which have erroneously been regarded as supernatural revelations. In this book

no denial is made of the fact that supernatural revelations do exist. Such a discussion would be foreign to its purpose. No rational man would claim, however, that all of the stuff and nonsense which is alleged by the votaries of the widely different and contradictory systems of religion were genuine revelations from the Divine, for in the sorry mess of absurd contradictions the Deity would be put into the ridiculous position of giving the lie to his own utterances. No one can for a moment believe the statement that all of the writings of Joe Smith, Buddha, Zoroaster, Mohammed, and many others, many of which contradict each other, could be inspired revelations of God; and yet in all these writings the claim is made that, while their authors were entranced or asleep, many of their prophecies were given them as dreams or visions.

Now to-day, in our western civilization, enthusiasts can and do induce auto-hypnotization by the excess of their own imaginations, plus excessive concentration, which, by developing in them first a condition of trance or semi-trance, and thereby giving free play to their fancies, afterward find mirrored in their own imaginations distorted semblances of their own ideals which they teach as divine.

Also many delusions which at first are transitory, afterwards leave an indelible imprint

upon the brain and become fixed, resulting in insanity.

Dr. Bernheim says that there is a danger which it is important to recognize, and which I shall mention. After having been hypnotized a number of times, some subjects preserve a disposition to go to sleep spontaneously. Some of them have hardly been awakened when they again fall into the same hypnotic sleep. Others fall asleep thus during the day. This tendency to auto-hypnotization may be repressed by suggestion. It is sufficient to state to the subject during sleep that when once awakened he will be completely awake, and will not be able to go to sleep again involuntarily during the day.

Others, too, are easily susceptible to hypnotization when they have often been put into the somnambulistic state. The first comer may sometimes put them into this condition by surprise, simply closing their eyes. Such a susceptibility to hypnotism is a real danger. Delivered over to the mercy of any one, deprived of psychical and moral resistance, certain somnambulists thus become weak, and are moulded by the will of the suggestionists.

The moralists who are careful of human dignity, and who are preoccupied with the thought of such great possibilities of danger, are in the right. They are right to condemn a

practice which may rob a man of his free will without the possibility of resistance on his part; they would be a thousand times right if the remedy were not side by side with the evil. When we foresee such a tendency in our cases of somnambulism, we take care to say during sleep (and it is a good rule to follow), "Nobody will be able to hypnotize you in order to relieve you, unless it be your physician." And the subject, obedient to command, is refractory to foreign suggestion.

Dr. Moll says, "It is possible that some states of sleep which are generally considered pathological, belong to auto-hypnosis."

I hope that Dr. Bernheim is right when he says it is a good rule to follow, always to suggest to a subject while he is hypnotized, that he can be hypnotized only by his physician. Perhaps this may prove a sufficient protection, but I seriously doubt it. There are neurotic individuals, especially with fanatical tendencies, who, after having been hypnotized by themselves or others, will fall into various ecstatic states, no matter what suggestions are made to them during the hypnotic sleep.

This part of the subject will be more fully discussed under the chapter, "The dangers of hypnotism."

CHAPTER IV.

HOW TO DETECT THE ATTEMPTED SIMULATION OF THE HYPNOTIC STATE.

MANY amateurs, and some professional operators, frequently imagine that subjects are hypnotized when they are not. A patient under my care was possessed with the idea that hypnotism meant necessarily sleep. So she would close her eyes at command, and imagine that she was immediately going to sleep. But she did not do so. Others are seized with terror, and begin to tremble and shake violently as soon as any attempt is made to hypnotize them. Others again (especially profoundly hysterical persons) apparently for the sake of appearing remarkable in some way, will simulate the hypnotic state when in reality they are not hypnotized at all. The facial expression, the pulse-rate, and the actions, together with the temperament of the person, will enable the experienced operator to discriminate between them at once. These subjects are not insensible to pain, and while they may pretend that they do

not feel the prick of a pin, or an electric brush, etc., their facial expression contradicts their words.

Minor degrees of hypnosis are sometimes very difficult to distinguish from simulation of the hypnotic state. However, it is impossible for any one simulating hypnotism to obey the different suggestions with that hearty co-operation with which the genuinely hypnotized person will. Hysterical persons simulating the hypnotic state will at times act very remarkably indeed; their facial contortions are painful; they will make hideous noises, and, for the sake of confounding the operator, will refuse to desist at his command.

At a public exhibition of hypnotism given recently, at which I was present, an operator called a number of subjects from the audience. A hysterical individual came up with the others, and before any attempt was made to hypnotize him at all he began the most dismal, hideous screeches ever heard, exceeding in wildness the yells of a maniac. He trembled, shook and wept profusely. The hypnotizer could do absolutely nothing with him, and he made so much noise and performed such peculiar antics, that he seriously disturbed the whole performance. Yet, to any one familiar with these conditions, it was apparent at once that he was seeking to draw attention to himself, and while

he did succeed in producing upon himself the appearance of being in extreme distress, yet motives of vanity and egotism were apparent in all his actions. I subsequently found upon inquiry that he was addicted to these ludicrous performances, when he frequented gatherings where attempts were made to study hypnotism or other allied psychical phenomena.

History presents many of these cases. A good example is the story of the oracle of Delphi in which its votary had to lash herself to fury before making any prophecy.

One of the ancient Hebrew prophets gave evidence of this disturbed psychic state, by promenading the streets of Jerusalem, clothed only in madness, while he wildly exhorted the people, and predicted dire vengeance upon them.

There are, in all communities, certain neurotic individuals who have unbalanced nervous systems, and who seek distinction, especially in public gatherings, by manifestations similar to the case just described.

The people of the Orient seem much more susceptible to this form of hysteria (?), if indeed it may be called such, than do the nations of the West. Its manifestations are legion. One will laugh, another will cry and laugh, another will have what are termed "hystero-epileptic fits." Another will deliver a whole meaningless harangue, and perhaps attribute

to himself supernatural abilities. My opportunities for studying this class of people have been very large indeed. They do not, as might have been expected, often become violently insane, neither are they good hypnotic subjects. They furnish, however, a greater majority of the victims of monomania. Their mental balance is so unstable that they are liable to become possessed with the wildest fancies. They make religious fanatics or would-be reformers, and imagine that they have some great and important mission to perform.

It is indeed a curious thing that society, which is so full of these people, should not have demanded of the scientific world some effort, either to prevent them from doing themselves or others harm, or find a cure, if possible, for this very sad weakness. These patients are not usually amenable to hypnotism. They constitute a class by themselves. They present at times marked evidences of nervous degeneration. They may have quick, restless eyes, retreating foreheads, with a large development of the occiput (the back of the head). On the other hand, they may have large stolid faces, dull heavy eyes, and may be slow of speech, with obtundity of all the mental faculties. I was once deceived by such a person. He was a house-carpenter by occupation, habitually phlegmatic, and exceedingly slow of perception,

One day he attended a religious revival, suddenly imagined he "got religion" and evinced his great joy by squeezing to such an extent the hands of those around him that he inflicted serious injuries upon one man's hand, and injured several others in a lesser degree. He was a man of powerful physique, and, when some of the cooler brethren endeavored to restrain him, his religious enthusiasm overflowed all bounds, and he proceeded in his ardor to knock several of them down. The condition ended in a severe fit of genuine epilepsy. This was the first fit which he ever had, and, as far as I know, the only one.

It has often been said that the border line between sanity and insanity is not sharply drawn, and persons studying this class of phenomena intelligently are soon made to realize the force of the saying, "The insane people are not in the mad-houses only." Men and women walk our streets with impulses of homicidal mania, with tendencies to suicide, and carry about with them all sorts of curious morbid ideas. In the study I have made of hypnotism, and the states simulating it, I have indeed been astonished to find how many strange impulses persons apparently sane carry about with them for years, scarcely daring to admit them to themselves, much less to confide them to their friends.

In the chapter treating of the dangers attending the practice of hypnotism, I shall discuss this subject to a greater extent.

Some persons, when the attempt is made to hypnotize them, gaze fixedly at a bright object held near their eyes, and while the eyes become set and there is more or less rigidity, will refuse to obey any suggestion. When the coin is withdrawn they will stare fixedly into vacancy for some minutes, and then have an attack of hysteria, and afterwards return to their normal state.

It is impossible for a person to simulate a deep hypnotic trance. I have seen it attempted many times. In one instance, an actress of no mean ability made an attempt, at my request, to do this, after seeing a number of persons deeply hypnotized. In her room she studied the condition, and tried it some half-dozen times in my presence, but while her face was a complete blank, while she succeeded in relaxing every muscle, her features would show by every movement that she perceived sudden noises, pin-pricks, etc.

States of narcotism from drugs, such as opium and chloral, sometimes resemble the hypnotic state. I once read of a man who took a dangerously large dose of morphine and attended immediately an exhibition of a public hypnotizer. He sat with others upon the

stage, went into a profound sleep, and remained so for about six hours, to the consternation of the operator. A medical expert could probably have recognized the opium-poisoning by a careful examination of the eyes, or by the use of faradic electricity.

As has been previously mentioned, persons, from motives of vanity, or for other reasons, have at times pretended that they were hypnotized when they were not. Upon the subject of simulating the hypnotic state Dr. Moll says, in studying the hypnotic state, "It has been too much the habit to look for one physical symptom or another, and settle the question of fraud from its presence or absence. And yet this is exactly the opposite of what is generally done in judging of mental states; *e.g.*, when we want to diagnose a case and decide whether it is insanity or not, no authority on mental disorders would suppose fraud simply because some bodily symptom was absent. He will consider and weigh the case as a whole. Even when each symptom taken separately might be fraudulent, they would be weighed against one another and a diagnosis formed from them. If the doctor finds, also, some symptom which cannot be simulated, he will weigh this, too, but he will not conclude fraud from its absence."

Drs. Moll, Kron, and Sperling argue very wisely that only persons with a large experience

in hypnotism can determine in a given case whether a person is simulating hypnosis or is really hypnotized. Drs. Moll, Krafft-Ebing, and others cite many phenomena which are common to the hypnotic state, and yet emphasize the fact that there are very great differences in the phenomena attending this wonderful condition. The school at Nancy claims that blisters can be produced upon the skin during a profound trance from hypnosis, also flushings of the skin, and other so-called vasomotor phenomena take place during the hypnotic state. But these phenomena may accompany other states as well as the one we are considering. Dr. Moll states again that there are persons who can cause a part of the body to flush or to turn pale by concentrating their minds upon it. He says then, "the most of the symptoms may, each separately or a number of them collectively, be simulated by the pretender." Bodily symptoms attending the hypnotic state were particularly emphasized by the great Charcot. The school of Nancy describes physical symptoms attending the hypnotic state, but many of them differed from those described by Charcot.

To exclude fraud was the effort of the two great French schools of hypnotism. Now there are phenomena which are produced by suggestion and which are independent of the subject's

will. And in these, although they may be produced without the hypnotic state being induced, wilful deception is impossible; therefore they must be largely relied upon in making a definite decision.

CHAPTER V.

THE DANGERS ATTENDING THE PRACTICE OF HYPNOTISM.

This part of my subject is the most important, and at the same time the most difficult, for the lay reader to comprehend. One must be familiar not only with the consequences, immediate and remote, following the hypnotic state, but must have a knowledge of the diseases of the mind and body as well. The subject appears first in a medico-legal aspect, secondly in a purely medical aspect, and thirdly in a social aspect. Much has been written upon the subject which is utterly absurd to any one conversant with the conditions occurring in hypnotized subjects. Many of the fears which exist in the popular mind are utterly groundless, while many, it seems to me, of the real dangers have never yet been recorded.

The recent trial of Gouffé in France for murder, in which hypnotism was pleaded as a defence, elicited much interesting discussion. I personally do not believe that the average indi-

vidual in the hypnotic state could be made to commit crimes. Prof. James states that while for a time the will and other faculties are in abeyance, they are not wholly extinguished, and if the command is very repugnant to the hypnotized subject he will not go beyond certain limits in its execution.

Let me illustrate by a case of my own. A girl who was hypnotized deeply, was given a glass of water, and was told that it was a lighted lamp. A broomstick was placed across the room, and she was told that it was a man who intended to injure her. I suggested to her that she throw the glass of water (she supposing it was a lighted lamp) at the broomstick, her enemy, and she immediately threw it with much violence. Then a man was placed across the room, and she was given instead of a glass of water a lighted lamp. I told her that the lamp was a glass of water, and that the man across the room was her brother. It was suggested to her that his clothing was on fire and she was commanded to extinguish the fire by throwing the lighted lamp at the individual, she having been told, as was previously mentioned, that it was a glass of water. Without her knowledge a person was placed behind her for the purpose of quickly checking her movements, if desired. I then commanded her to throw the lamp at the man. She raised the lamp, hesitated, wav-

ered, and then became very hysterical, laughing and crying alternately. This condition was so profound that she came very near dropping the lamp. Immediately after she was quieted, I made a number of tests to prove that she was deeply hypnotized. Standing in front of her I gave her a piece of card-board, telling her that it was a dagger, and commanding her to stab me. She immediately struck at me with the piece of cardboard. I then gave her an open pocket-knife, and commanded her to strike at me with it. Again she raised it to execute my command, again hesitated and had another hysterical attack. I have tried similar experiments upon thirty or forty people with similar results. Some of them would have injured themselves severely, I am convinced, at command, but to what extent, I of course cannot say. That they could have been induced to harm others, or to set fire to houses, etc., I do not believe. I say this after a very careful reading and a large amount of experimentation.

Immediate Consequences of Hypnotism.

I have occasionally seen subjects who complained of headache, vertigo, nausea and other similar symptoms after having been hypnotized, but these conditions were at a future hypnotic sitting easily remedied by suggestion.

A careful search of the literature has

failed to show that any serious consequences have followed immediately upon the hypnotic state.

Krafft-Ebing publishes a careful study of a case in which hypnotism proved injurious, owing to the fact that the subject had been severely strained by too frequent and too prolonged hypnosis.

For further particulars see "Hypnotism" by Krafft-Ebing.

Temporary disturbances of the different systems of the body have been noted. The question is often asked if one ever becomes hypnotized, and remains so for an indefinite period. I think not. I have recently heard of a case in Louisville, Ky., in which a young lady lay in a trance for several days and was subsequently buried, this condition being the result of an attempt which her lover had made to hypnotize her. I know nothing, however, of the authenticity of the story. It seems to me that the condition termed "catalepsy" might be produced when hypnotism was attempted if the hypnotized subject were intensely frightened at the time.

So-called hysterical sleep sometimes follows upon an attempt to induce the hypnotic state. Persons also pass by transition from the hypnotic state into this condition. See the works of Drs. Moll, Bernheim, and others. It is stated that

this hysterical sleep may be prevented by suggesting to the subject that he will hear music, or will see an imaginary game or a beautiful picture. This may succeed with some persons.

I have seen several states which might be loosely termed hysterical sleep, follow upon, or occur as the immediate consequence of, an attempt to hypnotize. In such patients, when they show these tendencies, I think suggestion without inducing the hypnotic state should be used, if they are in need of treatment, or other methods should be relied upon. Cases have been reported in which insanity followed the use of chloroform and ether. Probably these persons were of a badly balanced nervous temperament, and very likely insanity would follow as the result of any agent which made a profound impression upon them.

Certainly hypnotism should in such cases be used with the greatest possible care. If the physician can ascertain the fact that a patient is subject to temporary insanities, following severe fright or other similar conditions, due caution should be observed.

The terms somnambulism, hypnotism, catalepsy, I believe cover a great variety of mental states. The cataleptic trance or suspended animation might follow upon the hypnotic state, but I do not know that it ever has. It certainly is a danger to be thought of in the

application of hypnotism, and is an argument against the rash use of this powerful agent.

Conditions which Contra-indicate the Use of Hypnotism in Disease.

There is one contra-indication greater than all the rest. It applies more to the physician than to the patient, more to the masses than to any single individual. It is not confined to hypnotism alone ; it has blocked the wheels of human progress through the ages which have gone. It is undue enthusiasm. It is the danger that certain individuals will become so enamored with its charms, that other equally valuable means of cure will be ignored. Mental therapeutics has come to stay. It is yet in its infancy and will grow, but, if it were possible to kill it, it would be strangled by the fanaticism and prejudice of its devotees. The whole field is fascinating and alluring. It promises so much that it is in danger of being misused by the ignorant to such an extent that great harm may result. This is true, not only of mental therapeutics and hypnotism, but of every other blessing we possess. Hypnotism has nothing to fear from the senseless scepticism and contempt of those who have no knowledge of the subject.

Dr. Ewald of Berlin states that hypnotism should not be classified with the practice of

medicine, that it should not be so dignified. His reason was that every shepherd boy, every peasant, could hypnotize, and Dr. Moll answers that every shepherd boy, every peasant, can give a hypodermic injection, can compound medicines and apply bandages, but they cannot do so intelligently.

So, while hypnotism can be used in a greater or less degree by every one, it can only be used intelligently by those who understand, not only hypnotism itself, but disease as well. The argument is made that hypnotism is palliative in many cases, and not curative. This, alas! is equally true of a large number of the methods used in the practice of medicine. It can, like everything else in the world, be abused. It has also a very broad field of usefulness. Personally, as I said before, I believe some forms of hypnotic suggestion, perhaps even hypnosis itself, to be injurious in that class of insane patients known as paranoiacs. I can also conceive that an attempt to hypnotize a patient suffering with a surgical shock, might further add to the already dangerous exhaustion. Persons suffering with disease of the aortic valves of the heart should be hypnotized with the greatest possible care, especially when the compensation is not well established, yet it can be applied safely in these cases.

It is argued that the patient may learn from

the physician to hypnotize and apply it ignorantly to others. Drugs are learned of in the same way, and are too frequently administered to the patient by his friends. I know no more contra-indications for the use of hypnotism than for any other remedial agency. Every argument that is used against hypnotism may be used against any other method now in vogue of treating disease.

Again, I must plead earnestly for a more careful study of each individual patient. The physician, if possible, should feel as the patient feels ; should not only place himself in imagination in the position of the patient, but should share as far as possible with, and realize every condition of, the patient's consciousness. How often this is ignored does not need to be stated. Could we understand and measure accurately all of these feelings, desires and emotions of our patients, much needless suffering would be assuaged. Possibly many broken hearts healed, and certainly many wrecked lives restored to usefulness.

Dr. Moll, after stating that headache, watering of the eyes, depression, etc., may follow improper use of hypnotism, tersely remarks that many of those who object to hypnotism on account of these trifling ailments occurring after it, do not refrain from hypnotizing. He cites the following list of names : Gilles de la

Tourette, Ewald, Mendel, Rieger and Binswanger.

Dr. Moll gives the following list of rules for the relief of the nervous symptoms following the use of hypnotism. 1. To avoid as far as possible all suggestions which tend to unduly excite the mind. 2. To avoid continuous stimulation of the senses as much as possible. 3. To carefully do away with suggestion before awakening the subject. The proper method will not cause nervousness.

Remote Consequences of Hypnotism.

It is generally believed that the hypnotic state is likely to weaken and paralyze the will of the subject when he is otherwise in a normal condition. Many persons will object to being hypnotized because, as they express it, they are "afraid of losing their wills" and becoming the dupes of unscrupulous persons. I do not believe that there is any danger whatever of this. I have no evidence (and I have studied a large number of hypnotized subjects) that hypnotism will render a subject less capable of exercising his will when he is relieved from the hypnotic trance. I do not believe that it increases in any way his susceptibility to ordinary suggestion made in ordinary conversation.

I once had a business man tell me, after he had been induced to commit a folly in signing

a note, that he did not know what made him do it. I inquired minutely into the circumstances and found that he had been, as it is ordinarily expressed, "over-persuaded." Now this condition of over-persuading, or persuading against one's better judgment, is not similar to, or identical with, the hypnotic state. The crafty rascal with the winning smile who cheats you out of your every dollar does not entrance you, nor does he render you in any way unconscious. He studies the vulnerable parts in man's nature, and works skilfully upon him through these. His victim's weakness may be either greed, excessive sympathy, profound vanity, or the inability to reason clearly. Upon one or all of these the cunning man relies for success in dealing with his victim.

Reason is the great governor which controls and balances all of the mechanism of the mind, and it is indeed astonishing how few men allow its full sway. Let the emotions get the upper hand, give any or all of the passions sway, and the man is a wreck. I think as I have said before, that hypnotism does not weaken the man's reason or his will. It is the happy balance of mind that protects a man, and while the mind consists of the co-ordinate action of all of the faculties, they may act individually, and when one predominates and governs the others the mind is unbalanced. There is then

no immediate danger of hypnotism in itself being used for the purpose of unduly influencing the conduct of the mind. That very mysterious power which some men exercise over others and over the opposite sex, does not seem to me to be akin to any of the hypnotic states. As I said previously, the influence depends upon the ability of one man to appeal to the avarice or the vanity, or to the sympathies, of another. The real danger of hypnotism lies in the fact that, owing to the mystery that surrounds it, it may, in the imaginative and enthusiastic, produce by its very mystery a disturbed condition of the mind similar to, if not identical with, the condition of religious monomania. I think that patients are not liable to die from the effects of hypnotism, as they sometimes do from the effects of chloroform, ether, morphine, etc. Every time a man is hypnotized, for the time, more than the usual amount of energy is consumed. If such a condition be too long continued, or if he be hypnotized too frequently, a condition might result in which nervous exhaustion would be prominent. (See "Hypnotism" by Krafft-Ebing.) There are in our hospitals cases of a similar condition which were brought on by over-excitement of one kind and another.

Thus it follows that hypnotism is not a magical power by which one man can permanently

control or rule the destinies of another, or in which women can be robbed of their virtue, or the wealthy of their property ; and yet certain states of mental enfeeblement may be produced, not by hypnotism, *per se,* but by the credulity which was a part of the subject's nature before he submitted to the process of hypnotization.

This element of faith, as will be shown later, is a very important element in the production of hypnotism. It is this element when misused that makes hypnotism a dangerous thing. The love of the miraculous and belief in the supernatural, are, in many cases, the twin sisters of laziness, and men have ever sought through utilizing these to obtain their ends, and to earn their daily bread without toil.

Many persons who are afflicted with organic incurable disease, apply to me for treatment, and are very much disappointed when they are told that hypnotism is not the universal specific for all the ills of man.

Several chapters will be devoted to the uses of hypnotism in disease. The dangers of public exhibitions, made ludicrous as they are by the operators, should be condemned by all intelligent men and women, not from the danger of hypnotism in itself so much as from the liability of the performers to disturb the mental poise of that large mass of ill-balanced individ-

uals, which makes up no inconsiderable part of society.

Dr. Moll quotes the following: "Du Potet and Lafontaine describe, as a rare occurrence in hypnotic experiments, a state of lethargy in which artificial awakening was impossible. After some time there was a spontaneous awakening, and no evil consequences were to be observed. Guermonorez described lately how a person had remained three days in hypnosis, nobody being able to awaken him."

I cite the following from Dr. Moll again, in proof of what I have stated in the earlier part of this chapter:

"It is well known that there are some who can be easily influenced in life, who believe all that they are told, upon whom the most unimportant trifles make an impression, nevertheless, when an effort is made to hypnotize them, they offer a lively resistance, and the typical symptoms of hypnosis cannot be induced in them."

The following ideas differ from my own. They are taken from a translation of Dr. Luys' Clinical Lectures which were given in the Charity Hospital, in Paris: "You can not only oblige this defenceless being, who is incapable of opposing the slightest resistance, to give from hand to hand anything you choose, but you can also make him sign a promise, draw

up a bill of exchange, or any kind of agreement. You can make him write an holographic will (which, according to the French law, would be valid), which he will hand over to you, and of which he will never know the existence. He is ready to fulfil the minutest legal formalities, and will do so with a calm, serene, and natural manner, which would deceive the most expert law officers. The somnambulists will not hesitate either, you may be sure, to make a denunciation, or to bear false witness. They are, I repeat, the passive instruments of your will. For instance, take E., she will at my bidding write out and sign in my favor a donation of forty pounds. In a criminal point of view, the subject under certain suggestions will make false denunciations, accuse this or that person, and maintain with the greatest assurance that he has assisted at an imaginary crime."

As will be seen from the quotation here made from M. Luys, he evidently believes that he can convert his subjects into mere puppets. This may be true in the laboratory when a hypnotist has a few hysterical young men and women, who will, under such circumstances, do what they are told ; but the conditions cited by him are certainly exceptional, and are not likely to occur in the ordinary therapeutic application of hypnotism.

The following are rules from Bernheim for preventing danger from the hypnotic state :

1. Never hypnotize any subject without his formal consent, or the consent of those in authority over him.

2. Never induce sleep except in the presence of a third person who is in authority, who can guarantee the good faith of the hypnotist and the subject. Thus, in the event of an accusation, or any suspicion of any attempt which is not for the relief of the subject, any trouble may be avoided.

3. Never give to the hypnotized subject, without his consent, any suggestions other than those necessary for his cure. The physician has no rights but those conferred upon him by the patient. He should limit himself to the therapeutic suggestion ; any other experiment, even if it should be in the interest of the science, is forbidden him, without the formal consent of the patient. The physician should not, if he thinks that the experiment which he wishes to perform may have the slightest harmful effect, profit by his authority over the patient in order to provoke this consent.

He also states that each of the phenomena severally can be induced in sensitive subjects, without producing first the hypnotic state, meaning by the hypnotic state, I suppose, the

unconsciousness ; and he cites a number of cases to prove his assertion. The terms hypnosis and hypnotic sleep are used in a very confusing manner by most, if not by all, writers upon this subject. They tell you in one breath that a patient may be hypnotized and will be conscious, that he may be hypnotized and be unconscious, that he may obey the suggestions when out of the hypnotic state exactly as he would when in it, that a part of the body may be made insensible to pain without in any way making the patient unconscious of events around him. Once for all I mean, when speaking of the hypnotic state, the condition in which unconsciousness is induced by those means, varied as they are, which are described in this and other books of its kind.

Krafft-Ebing also cites a case where a patient had been injured by the misuse of hypnotism. That such is the case no one who has ever experimented intelligently in this direction will deny. This is true of every remedial agent ever employed for the relief of man. Every article we eat, if wrongly prepared, if stale, or if too much is taken, will be harmful. Every act, every duty of our lives may, if overdone, become an injury.

Then, for the sake of clearness, let me state in closing, that hypnotism is dangerous only when it is misused, or when it is applied to that

large class of persons who are inherently unsound, especially if that mysterious thing we call credulity predominates to a very great extent over the reason and over other faculties of the mind.

CHAPTER VI.

HYPNOTISM IN THE LOWER ANIMALS.

THE first one to notice this phenomenon was Daniel Schwenter who, in 1636, fascinated a number of cocks and hens. Fr. Kircher, a Jesuit priest, made a number of scientific experiments ten years later.

Animals can be hypnotized in a direct ratio to their ability to concentrate their attention. This varies much in the different species. It is, as a rule, more marked in the domestic animals than in wild ones.

Certain animals have the power of fascinating their prey, but to what extent has not been fully determined. The ability that a cat has to hold the attention of a bird is doubtless familiar to all. Assisted by a student, I have made a number of experiments in this direction, and if his observations be correct, the eye of a cat occupies the same relation to a bird that a bright coin does to a man. The cat's pupils become dilated in watching a bird, and the

bird, although flying in circles during the most of the time, keeps its eyes fixed as far as possible upon those of the cat.

Some years ago I purchased a stuffed cat. A student hid it in some bushes on a farm so that the head, eyes and fore-paws were mainly visible, while the rest of the body was concealed. A bird sitting on a tree, as soon as it perceived the stuffed cat, first appeared to be frightened, then began flying in circles around the cat, each successive circle smaller than the last.

Finally the bird lit upon the ground within fourteen inches of the cat's face, and looked steadily into its glass eyes. Its attention was fixed, its pupils somewhat dilated, and so absorbed was it that it did not fly until the student, stepping carefully, passed between it and the cat. This experiment was repeated on nine different occasions with different birds and the same phenomenon was obtained eight times.

Snakes have also the power to fascinate frogs and little birds. But they do not often do so. Mr. Vincent says, out of a hundred frogs put into a snake's cage only six were in any way fascinated ; the others jumped wildly about till they were caught by the snake. Probably the condition of fascination was a condition of fascination from fear.

It seems unreasonable to compare this fascination, which may be the natural conse-

quences of extreme fright, with the catalepsy induced by means of pressure on the nerves.

Snakes also can be hypnotized. Snake-charmers are able to fascinate them by means of music, and they induce the snakes to imitate as far as possible their movements. It is generally said that in cases of snake-charming the fangs are extracted.

It is questionable as to whether this "fascination" is not the result, in most cases, of training.

The student previously mentioned, placed a small looking-glass near the habitation of a snake indigenous to this climate. Coming out of its hole one day it perceived the glass, fixed its eyes upon it, and remained in this condition, apparently oblivious to all other conditions. The student caught it while it was in this position, released it again, and tried on subsequent days to approach it when the glass was not there, but found that he could not do so without the snake giving evidence of a knowledge of his presence.

It is a familiar trick with children to catch a hen, hold her head near the ground, and draw a line with a piece of chalk, then releasing her head she will continue for some time in the position in which she was placed, and finally slowly walk away as though arousing herself from the condition of stupor.

A hen can also be made to sit or to transfer her nest by means of a well-known expedient. The head is placed under the wing, and the bird is then gently rocked to and fro, with the result that it apparently goes to sleep. On waking, the hen will remain contentedly on the nest in which she has been placed.

It is not easy to catch a pigeon by going straight up to the bird, but it can be quickly taken by walking around and around it. The pigeon turns itself so as not to lose sight of its would-be captor, and soon it can be seized. This has been quoted as a hypnosis but there is no doubt that the bird becomes dazed and giddy.

Many claim that animals can be held at bay by simply holding their gaze. Illustrative of this Mr. Vincent says, "On one occasion I succeeded in compelling a 'jibbing' horse to 'back' by simply fixing my eyes on his, and then walking toward him. On my taking my eyes from him, he, glad to be released, immediately started off in the proper direction, and the driver on that journey had no more difficulty with him."

A veterinary surgeon assures me that horses are very susceptible to hypnosis, and that while in this state they are susceptible to a very large amount of suggestion. He claims that when horses are hypnotized by compelling them to

look at a bright object, suggestion will act powerfully upon them, and that they give evidence that suggestion may take the form of a delusion. He did not cite any cases.

I have experimented on a very intelligent dog, but failed to get evidence that it could be hypnotized.

The phenomenon that apparently resembles the trance state by nerve-stimulation is seen in the simulated death of animals. A notable instance is that of the opossum in our own land which, when frightened, will lie apparently dead, as is well-known to all southern people.

Various experiments have been tried upon frogs. They will remain, after they have been placed there and held there, for some time in positions which are unnatural. In this their positions resemble the artificial catalepsy which can be induced by suggestion. As is well known a hypnotized person will hold his arm in any position he is told to, but the comparison between a frog lying upon his back after he has been held there for some time, and the catalepsy which can be induced by suggestion upon a hypnotized subject, seems to me very strained. The frog is probably stunned or frightened, while this is not the case with a hypnotized person.

This trance state in animals may generally

be induced by monotonous excitation of particular nerves or by constant pressure.

Scientific interest attaches mainly to the apparent death, while life still continues, of many insects. This condition is evidently in their case an act of the brain in its higher centres.

The psychic states of the lower animals present a very wide field for experimentation and study. How nearly their conscious life approximates in function and phenomena, our own, we as yet do not know. From a large experience in the study of the intelligence of animals, I personally believe that the higher orders of them possess in a minor degree all the faculties which belong to the human mind. Dr. H. Seawood, in his admirable work upon Materia Medica and Therapeutics, states that the drugs which act upon man, producing delirium, very frequently act upon the lower animals, producing convulsions. He explains this by the fact that in the animals the cerebrum is less highly developed, hence the centres of the lower brain and spinal cord have to bear the brunt of the action of the drug.

It is well known to all physiologists that when these centres are stimulated and when the inhibition of the cerebrum is withdrawn, convulsions result. It does not seem strange then that animals should be easily made unconscious

(entranced) by music, loud noises, fright, etc. It is claimed by the French school that hysterical persons are frequently atavistic. That is, their nervous development has reverted to the state resembling one of the evolutionary forms of man. These persons, so it is said by the school of Nancy, will frequently be hypnotized by any sudden shock to their senses, such as the blow upon a gong, the bright flash of a light, etc.

CHAPTER VII.

THE CURATIVE POWER OF HYPNOTISM.

NEXT to the welfare of the soul, no subject possesses so wide an interest as does the well-being of the body. Medicine and religion were early united in the progress of man. Esculapius held in Grecian mythology an important place among the gods. Miracles of healing have characterized every religion in the world which claimed a supernatural origin. Cures by faith and by prayer have been recorded by most if not by all of the votaries of the different great religious systems. That there is a certain element of truth in the claims of all these systems cannot be gainsaid.

The shrine of St. Anne de Beaupré, in Canada, the pool of Siloam mentioned in the Bible, the cures of faith-healers in our own land, all bear witness that in some way, not yet clearly understood, the mind exercises a great deal of influence for good or ill over the human body. The belief is almost as universal as the belief in

God, and testimonials abound in all religions that the sick have been and are being cured by faith. The scientific world has been too busy with purely material things and too sceptical of spiritual things to give this matter a just hearing. There is a reaction now even among the medical men, and the spirit of investigation pervades the minds of our best thinkers. With the advance that is being made in pathology and psychology, many diseased states are classified now and understood which a few years ago were enigmas. Go back a little way in history and we find madmen worshipped by the savages as deities, or, by their more civilized brethren, they were regarded as being possessed of devils. In madhouses they were whipped and punished to cure their supposed evil tendencies. But the light of our more humane civilization to-day is being beneficently shed upon this very large benighted class, a class which is ever growing as the nervous systems of men become, by evolution, more developed and more highly organized. Mental diseases are absolutely increasing and allied nervous conditions are becoming alarmingly more frequent. Childhood and old age alike pay their tribute every year to the ever-increasing throng. Hereditary taint, too, plays its part more actively under the conditions of modern civilization than it did when man was

in his cruder state. The biological law of the survival of the fittest is now modified.

During savagery the more feeble were not afforded the protection from the rigors of the weather and from the many sources of danger, which the unfortunate of our own day receive.

Nervous, hysterical and epileptic children receive more tender care, hence their lives are prolonged and many times they marry, perhaps a mate as degenerate as themselves, and an innocent posterity pays, with bitter suffering, for this stupendous error.

A careful student of medicine, if he has that sympathy for suffering which he should have, is many times appalled at the thought of the accumulating misery which is in store for the generations yet unborn.

What can hypnotism do for these conditions? Something, it is to be hoped, possibly not so much as could be wished. No palliative remedial agency can cure this immediate wrong. Hypnotism cannot unmake and regenerate a nervous system, which is inherently so delicate that its possessor is rendered unfit to meet the complex requirements of our modern life.

Mental disease will be the first to be treated, and, for the sake of clearness, especially for the lay reader, a very few concise definitions will be given. The following definitions of insanity are taken from Webster's International

Dictionary. They are, "1. The state of being insane ; unsoundness or derangement of mind ; madness ; lunacy. 2. Such a mental condition as, either from the existence of delusions, or from incapacity to distinguish between right and wrong with regard to any matter under action, does away with the individual responsibility."

The latter definition is at once the broader and the better. Alas, if all the persons who come within its scope were confined in madhouses the present accommodations for the treatment of the insane would prove very inadequate for the care of this multitude. Most people have impulses, which, if not restrained by experience, by the will, or by training, would make them madmen. A man is insane, then, whenever his mind does not show him how to place himself in right relations with society, and with his natural environments.

Bearing in mind this very broad classification the reader will have no difficulty in following what will be said upon the treatment of this class of diseases by hypnotism.

Hypnotism is of no value whenever the brain is so injured by disease that any consecutive, co-ordinate thought is impossible. Persons absolutely demented cannot be hypnotized. I have tried this experiment many times. Many persons in a demented condition do not know

even their own names, and are for the most part probably ignorant of all events passing around them. This condition of course exists in all degrees, and occurs as a result of many widely different morbid states, so that whenever an increasing diseased condition of the brain impairs the power of attention by the destruction of the cortical cells of the brain, hypnotism is useless. It has not succeeded in my hands in that class of maniacs who suffer from fixed delusions. Neither has it succeeded in cases suffering from what are technically termed "imperative conceptions." (Cases suffering from various imperative conceptions are, while possessing their reason, either irresistibly led by certain impulses, or they cannot rid themselves of erroneous ideas concerning themselves and others.) Broadly, that large group of insanities accompanying organic destruction of the brain can never be cured and only very rarely benefited by hypnotism.

The terms "hypnotic suggestion," "post-hypnotic suggestion," and "simple suggestion" will be used so frequently that an explanation of them seems necessary.

By "hypnotic suggestion" is meant suggestion made while the subject is hypnotized.

By "post-hypnotic suggestion" is meant suggestion after the patient is out of the hypnotic state. The term post-hypnotic suggestion has

also been erroneously applied to suggestions made during the hypnotic state when these suggestions are intended to remain permanently in the mind of the patient.

By "simple suggestion" is meant the suggestion made to the patient without hypnosis being induced. The whole subject will be further elucidated in the chapters devoted to the theories of hypnotism.

By the term "mental control" is meant all forms of suggestion or other means of impressing the psychic life of the patient.

There are many morbid conditions which are not attended by permanent injury to the structures of the brain. These are all amenable in a greater or less degree to one or another of the forms of suggestion. Children suffer from many morbid, erroneous ideas, which afflict their developing brains. When these become chronic they can frequently be cured by strong suggestion, or when this fails by the use of hypnotism. Examples are, fear of the dark, excessive fear of contamination, fear of ghosts, etc. The disease known as "night terrors" in children, when the physical causes are first removed will usually yield to hypnotism. I have also benefited a number of cases of somnambulism, both in children and adults, by hypnotic suggestion.

Hypnotism is also valuable in curing many

bad habits of mind and body which have been formed during childhood. Several severe cases of kleptomania have been cured by it. Immoral and vicious tendencies are in a measure amenable to its influence.

Modern science is throwing a new light upon this whole question of morals. Its principles have long since been recognized in a degree. The infinite variety in the moral tendencies of different individuals has at last aroused the best minds of the age to a rational consideration of their causes. It is now recognized that there is such a thing as moral insensibility, and also that this mental disease, for it is a disease, may be either congenital or acquired. The old idea of individual responsibility is now taking an entirely different guise, and it is a recognized fact that the different moral traits may be strengthened or weakened by use or disuse. Whether one believes that the mind is simply the result of material life, or whether it is due to and finds its essence in an external spiritual agency, the practical results to the world by the new conception of the growth or development of the mind, will be the same. Crime is essentially a disease. A disease not brought about by some spiritual prince of darkness, seeking the eternal damnation of man, but by a disease inherent in the development of the psychical life of the individual.

Jesse Pomeroy, the fiendish murderer, in the State's prison in Massachusetts, affords a striking example of moral anæsthesia (insensibility). Persons having observed him carefully, state that he gives no evidence of deep remorse for his revolting and hideous crimes, but instead is simply impatient of restraint, and regards himself as not being thoroughly understood (which is true), and also that he is a much-persecuted man, which it is needless to say is not true.

The point that is here sought to be made clear is this, that the mind possesses in embryo certain capacities and traits. If these are properly brought out by its heredity, environment, and training, it will reach its full and grand development. If, from one of many causes, in some respect, it is hindered, the divinest thing of all creation is distorted. Now in the subjective consciousness of every one lie dormant, controlled by the reason and by the will, all of the impulses, which if let loose, play havoc with the character. They are preying upon us in the still hours of the night, or when our better selves are conquered by the sway of passion. They grow with us, these hideous monsters that inhabit the cellars of our souls, and, when our reason and will are sleeping, they climb into the beautiful mansions of our intellects and besmear them with their own filth and slime.

These impulses, these tendencies, which are in every man, can be, as is well-known to all, cultivated or repressed. When any one of them, thirst for alcohol for instance, gets the upper hand, it may sometimes be repressed by hypnotism when the ordinary forces fail.

It is in the functional insanities that hypnotism finds its true remedial sphere. It is in children whose moral natures are unbalanced, that it can be made useful if other means fail, in controlling tendencies. It is in the adult who is weak and vacillating that it sometimes proves a tower of strength. It can be applied in many ways. The Church has done much in this direction by making fear its lever. Again, hope has been the guiding angel of many fallen souls. Love and hate can be so wrought upon that the hypnotic state will be induced, and thereby play their part for good or ill in life's great drama.

Hysteria has been casually mentioned and defined, and a separate chapter will be devoted to the subject.

Nervous prostration, technically termed "neurasthenia," is more amenable to hypnotism than is any other form of nervous disease. Too many women, and a large number of men, alas, know its symptoms full well. Sleeplessness, depression, inattention, irritability, all go to make up its symptomatology, and cry out with

mighty voices that man has worked his nervous system too hard.

Many pains, as neuralgia, etc., can be relieved or cured by the use of hypnotism. Many functional disturbances of different parts of the body, likewise, may find relief through its agency. Many painful conditions often attending destructive organic disease can be ameliorated in the same way. Hypnotism never did and never can restore organs whose active tissues have been totally destroyed. A man whose brain has been injured, either from external causes or from an extensive hemorrhage within its substance, can never again have the paralyzed side of the body restored to its normal condition by hypnotism, but if enough brain tissue is left, suggestion made in the hypnotic state may prove a more powerful stimulant to him than ordinary incentives, and he may regain, in a degree, the lost use of his body.

I do not know a greater crime than holding out false hopes to such an one, when these hopes must be blighted. Therefore too much should not be claimed for any method of cure, for fear that the disappointment will be too great. It indeed requires nice discrimination upon the part of any one practising hypnotism, to know how much either to hope for themselves, or to promise to their patients.

Hypnotism is a remedial agent, so myste-

rious and overwhelming in its effect that it is likely to impress too profoundly the invalid who is seeking relief. It is more wonderful than surgery, more subtle in its influence than drugs, and permeates every part of the psychic life of the patient.

Hypnotism in Acute Delirium.

Hypnotism has proved very beneficial in the acute delirium attending many fevers, and the best method of using it is by holding the attention of the subject, by means previously described, until the surplus activity of the brain is subdued. A rather large experience with it in this field has convinced me that whenever feasible the attention should be held by touch, sight and hearing, sometimes a difficult task. Also the suggestion may be suited to any delusion in the mind of the patient which is made apparent by his speech.

One man was suffering from what is termed a "busy delirium," and was in the second week of typhoid, and constantly spoke of an unpaid bill, and of certain debts which were due him, and of a contract which he should sign but could not. Holding his right hand in mine with my left a document was held before his eyes and he was commanded to look steadily at it. He was told that this paper would give me the power to settle his affairs, and he was com-

manded to sleep. The patient, being delirious for fourteen hours, was made by this means to sleep four and one-half hours.

Another person suffering from a form of religious delirium, after several futile attempts to hypnotize him, was finally hypnotized by having a portion of the Episcopal prayer-book read to him. Many more instances could be quoted. Out of nearly one hundred delirious patients I never failed to obtain a greater or less degree of hypnosis. They are frequently more susceptible to it than when they are well.

Probably the effects of opiates are many times the results of suggestion rather than from the narcosis induced by the physiological action of the drug.

Hypnotism can be used to train the attention of persons habitually inattentive.

It probably would not, however, prove of service in permanently reducing high pulse-rates which frequently attend both disturbed mental and febrile states.

CHAPTER VIII.

METHOD OF APPLYING HYPNOTISM IN DISEASE.

In Chap. I. directions were given for inducing the hypnotic state. This state varies to a certain extent, according to the method used. As was previously said, the pulse-rate may rise, the face flush, or the reverse may occur, or hypnosis may be induced without causing either effect. One may be hypnotized by simply telling him that he will sleep, and in disease the beneficial effects seem to depend both upon the method of inducing the hypnotic state, and upon the suggestions made during hypnosis.

In the various mental states accompanied by delusions, active suggestion of such a nature as to contradict and correct the delusion is always necessary. When there is a high degree of nervous excitability without delusion, absolute repose should be sought, and can best be obtained by inducing hypnosis simply through the sense of touch, and by commanding the patient to close his eyes. Sometimes

simply stroking the hands gently will be sufficient. Stroking the head may be necessary, or placing the tips of the fingers over the eyelids will answer, when other methods fail. Music will often prove of service, and dim light will frequently aid. Total darkness is rarely desirable.

In chronic diseases, where the patient is fretful, and exaggerates minor symptoms, he should, by ordinary verbal suggestions, be taught self-control, and should not be encouraged to rely too much upon hypnosis to relieve him of pain, which it is often best for him to endure for a time.

In a case seen by me a patient, who had been suffering for a long time, desired to be kept in the hypnotic state, practically all the time. While his sufferings were not at all times intense, occasionally the pain was severe. It was impressed upon him, both in and out of the hypnotic state, that his own self-control was essential to a permanent cure, and that the hypnotization must be reserved to relieve the acute pain. Where there is severe pain the attention must be held in every possible way.

In addition to the subject's looking at a bright object, suggestions should be made rapidly and sometimes very sternly. Where there is extreme restlessness and insomnia with

those who are acutely ill, with fevers for example, utter repose should be sought, and the sense of touch and hearing are the best avenues through which to induce it. Natural sleep sometimes comes instead of artificial hypnosis. In this natural sleep the patient will not obey suggestion, and it is always preferable to any artificially suggested condition of sleep.

In the application of hypnotism to disease, The personality of the operator counts for a great deal. He should, by every possible way, obtain the volitional obedience from his patient, and the removal of every cause of pain and discomfort should be sought before hypnotization is attempted.

The question is often asked how long it is safe to leave a patient in this state. No evil consequences are likely to follow the use of hypnotism for the relief of either mental excitement or physical pain. The degree of hypnotism induced should vary according to the suffering of the patient. It should be carried just so far as will afford relief to him, and no useless suggestion should be made to him during the period of hypnosis.

I have elsewhere said that natural sleep frequently follows by transition upon the hypnotic state, or, when the attempt is made to hypnotize the patient, he falls instead into a natural sleep. This is always desirable. It is

astonishing to what extent one's consciousness exaggerates even a small amount of pain when it has been endured for a long time. The value of repose of the nervous system as a sedative to other diseased functions of the body, has never yet been fully appreciated. A patient of mine suffering for months from a very painful affliction of the bladder, had obtained no rest either night or day. Morphine disagreed with him to such an extent that its use was discontinued. The drugs which sometimes afford relief in this condition had all been tried, but, owing to the sensitive condition of the stomach, they all, in turn, had to be given up.

The man was a nervous wreck, shrieking and screaming with every recurrence of pain. He was a curse to himself and to his friends. He had been discharged from a number of hospitals, for he was ill-tempered and unmanageable, owing to his sufferings, and neither attendants nor physicians had any patience with him.

I was requested by a friend to see him, and from his manner and mode of speech, at once gathered the idea that his physical sufferings were intensely aggravated, and at the same time exaggerated by both his fear, and, if I may use the word, the hyper-excitability of his whole consciousness. Pain there was, however, and plenty of it. He was not free from it night or

day, catching only about two hours' sleep in the twenty-four, and that in snatches. Examining the patient I found that he held all of his muscles rigid, and that he was so afraid of being hurt that an examination of the bladder was practically impossible. Chemical analysis showed blood and pus in the water.

I told the man that if he would relax every muscle of the body his pain would cease, and that he would go to sleep. I told him to think of sleep and for a time to forget, and not allow in his consciousness that he had any pain. At the same time I gave him some sugar-of-milk pellets. I sat by him and held his hands and stroked his head and commanded him to sleep. In a half-hour he was sleeping quietly. This was a natural sleep, not a hypnotic trance. He slept four and one-half hours, and was much refreshed, but again complained of pain, and I insisted upon his remaining perfectly quiet, and explained to him the difficulty he gave both his physicians and attendants, and reassured him that perfect repose, mental and bodily, would greatly lessen his pain. His attendants, who were very capable, caught the idea at once and assisted me in carrying out the plan of treatment. He was taught by a series of exercises, after the Delsarte system, complete muscular relaxation. The degree of mitigation obtained in this way was astonishing beyond

measure. The chronic disease which had made his life a curse to him was, in a measure, subdued. The utterly unmanageable patient became docile, and, while the disease ended fatally, the man was made comfortable without the use of drugs, all of which caused him greater discomfort.

Simple Suggestion.

Hypnotic suggestion is by no means the only method we have of favorably impressing the mind. While the theories which have been advanced by the so-called Christian Scientists, mental healers, etc., are absurd in the extreme, there is nevertheless an element of truth in their teachings. Since it is the mind that perceives all pain, and since that pain can react upon the mind, it logically follows that, within certain limits, the converse of this is true.

Recent psycho-physiological experiments carried on at Harvard and Yale Universities in our own country, and in the universities abroad, throw much light upon many questions which ultimately must prove of great benefit. By means of suitable instruments it is possible to estimate the time which it takes a sensory impression to reach the consciousness and again be transformed into a motor impulse.

Again, it is now a recognized truth that all

the sense perceptions are capable of such an extent of cultivation that one of them alone can, in a measure, substitute for, or take the place of another. Through every avenue of the mind the consciousness of a man can be reached in thousands of ways, and the psychic life is more infinite in its various sensations and impressions than are all of the combinations of tone and color ever dreamed of in music or in painting, and no man has ever yet learned the way to measure the relative and absolute amount of pain which can be borne, and which is being felt by another.

It has long since been recognized that nervous excitability and lack of self-control make pain more real and harder to bear. All men possess, in a greater or less degree, self-control. It is capable of development by various means and in differing ratios, and just so far as all members or parts of the body are under the control of the will, just so far can one be made oblivious to suffering. It is known by almost every one that some great excitement will for a time make the weak strong, and every medical man has seen, more than once, a puny, whining, sickly woman, under the stress of circumstances, arise from her degraded mental state, and be noble and strong, aye, a very heroine, in great emergencies. Now, in disease, hypnotism may be a proper means of influenc-

ing the mind. The emotions may be the channels through which the healthy mental stimulus may be given to the mind, and the intellect in another person may be the part in need of treatment. Again, the artistic desire, or the love of gain, aye, every trait, every attribute, if properly studied and understood, can, by a skilled hand, be played upon like the keys of a musical instrument, and the harsh discordant notes of the diseased consciousness may be changed into the divinest harmonies, and a halting vacillating character may be converted into one steadfast and true. In the light of our modern research science promises grand things to the coming generations. There is hope for the weak, relief for the sick, not only through the discoveries of physiology and chemistry, but also through a proper understanding and classification of the various mental phenomena, which have been with us forever, and forever have been misunderstood. The field of suggestion, independently of the hypnotic state, is a broad one. Mental therapeutics in the broadest sense promises more than has ever been hoped for it by rational men. It is difficult because the chain of environment binds the human mind down. Habit, tradition and custom are among the keepers of the prison in which the soul is bound. How many aimless people there are in the world to-day, whin-

ing and complaining for the want of a purpose to make life worth living. They themselves do not know this want, and yet it acts powerfully upon them. How many great minds there are, too, who are wrung with suffering at the errors they see everywhere around them, and which they are incapable of remedying. And yet when one speaks of treating disease through the mind, either by hypnotism or by any other means of impressing the psychic life, the practising physician and most of the laymen will say, "Oh, yes, very true. Imaginary disease can be cured by suggestion, but real disease cannot be." How great this error is the future will prove.

Coarse food, badly cooked, may possess the same chemical constitution as a well-cooked sumptuous meal served at the rich man's table. Slops, with which the sick are so often regaled, are said by chemists, many times to contain nourishment in a concentrated form, and yet what man does not loathe and despise this class of food. Every man who has enjoyed a good dinner, and I trust that every one has, can testify how often the sight of food and the faces of happy friends have banished pain and care. Every man who has listened to a lecture or sermon which would thrill his soul, can testify to the fact that it made him feel physically better. Every true mother will tell you, how, in the love

and care of her children, she finds her own life made young again, and experiences in their pleasure the vigor and health of her early youth. These are all truisms, but for them a plea is necessary. The world needs more happiness. Individual constitution and disposition need more careful study. The power which one exercises over another is not due to any one factor. Its constitution is more complex than the molecules of organic matter. The man does not live, who possesses within himself a vestige of those qualities which ennoble the race, who does not in a measure recognize and take pleasure in those with whom his soul finds an affinity.

The psychic impression which one person makes upon another is, at the same time, the most subtle and the most powerful sociological factor that exists. Is it not reasonable, then, that association with those who are congenial to us should prove a stimulus which tends to restore lost health? The opposite, every one recognizes to be true, therefore the mental constitution and disposition should be studied and understood by the practitioner of medicine before he attempts to cure the sick man.

How is this to be done? The soul inscribes upon every man's face a story which the skillful may learn to read. Every tone of the voice reflects the condition of the mind within, when

one will stop to listen and understand it. There is not one attitude, not one pose of the human form that does not mean something. The mind is ever seeking, by every means within its power, to express itself to the outer world. Often its very attempt at concealment tells, plainer than words, of the storm of suffering and passion within.

The blind now see through their fingers and their ears, the deaf man hears with his eyes and touch, aye, and even those unfortunate ones who are both deaf and blind, learn to hear with their fingers, and literally speak words with their mouths. What glorious triumphs over matter! The human soul imprisoned, even by the death of the senses, cannot be kept in bondage. Hands will speak for paralyzed tongues if they are taught.

So let us hope that in the future the attempt will not be made to separate mind from matter, but that their inter-dependence may be recognized, and the proper relation of external causality to the subjective consciousness may be better understood.

Fanaticism, even of the most ignorant, has, in a great many directions, discovered much which the scientist and man of reason failed to find. So, while I feel pity for the sect which believes that man has no body to be hurt, I equally pity the inexplicably stupid material-

ism of the so-called scientific educated medical man who fails to understand the psychic constitution and personal traits of the patient. I rejoice that I have lived to see the triumph of chemistry, of surgery, of physiological and pathological research ; but the psycho-physiological research promises discoveries greater than all these ; those which will reveal the laws which govern and control the actions, feelings and thoughts.

Whenever disease, then, affects conscious life, whether it be organic or inorganic, its manifestations may be altered in a degree by anything which may reach it, either by the external world, or by any cause which originates in the recesses of the consciousness. Let the plea for the study of the mind be made everywhere. Let its phenomena be read by the school children. Teach them not only reading and writing and the ordinary studies, but that by the exercise of their faculties they can ward off both mental and bodily ills.

The system of mental therapeutics here outlined is necessarily difficult. Its difficulty increases in that ratio that men and women fail to understand themselves and others. The little couplet that says,

> "I do not love you, Doctor Fell,
> The reason why I cannot tell,"

will soon lose its force and power. Men will

learn to analyze and find out that which is objectionable in others, and by judicious analysis learn their own faults as well.

The point that is sought to be made clear in this chapter is, that hypnotism and therapeutic suggestion are only specimens of some of the means which may be used to act upon the mind for the cure of disease.

CHAPTER IX.

HYPNOTISM IN SURGERY.

BERNHEIM, in his book on "Suggestive Therapeutics," page 116, says, "The use of hypnotism for the production of surgical anæsthesia is by no means a new thing. Dr. Charpignon reviewed the following facts, relative to operations practised during hypnotic anæsthesia, in the *Gazette des Hôpitaux* in 1829. The removal of a breast by Jules Cloquet in 1845; in 1846, the amputation of a leg, and the extirpation of a gland, painlessly performed by Dr. Loysel of Cherbourg; in 1845, a double thigh amputation by Drs. Fanton and Towsel of London; in 1845, the amputation of an arm, by Dr. Joly of London; in 1847, the removal of a tumor of the jaw by Drs. Ribaud and Kiaro, dentists of Poitiers.

"In spite of these fortunate trials, surgeons soon showed that hypnotism only rarely succeeds as an anæsthetic, that absolute insensibility is the exception among hypnotizable subjects, and that the hypnotizing itself generally fails in

persons disturbed by the expectation of an operation."

It is my experience that a larger number of persons can be made insensible to pain than the eminent author, Dr. Bernheim, and his colleagues believe to be true. All of the anæsthetics now in use, each in their turn, have met with very great enthusiastic admiration on the one side, and profound distrust on the other. I agree with Dr. Bernheim that hypnotism can never wholly supplant the use of ether, chloroform and gas as an anæsthetic for surgical purposes.

Many of the failures, however, to produce by hypnotism the insensibility to pain, were due to the subjects not having been properly prepared. I am also willing to admit that my own experience in the surgical use of hypnotism is limited when compared with European hypnotists; but I shall give it, and trust that it may add a little to what has been so ably written by physicians, both in Europe and in America.

I have hypnotized forty-two persons for minor and major surgical operations. Six obstetrical cases are to be added to the list, making a total of forty-eight. Every one of these patients was hypnotized more than once before a surgical operation was attempted. Six of them were major or capital operations, exclusive of the

obstetrical cases. This leaves thirty-six of my cases which were only minor operations. Four of these thirty-six cases, while there was no danger in the operation performed upon them, would have suffered severely had it not been for the deep hypnotic trance.

The most difficult operation performed under hypnosis which ever came within my experience will now be related, and a few of the others will be casually mentioned.

The patient now to be described was a young man, suffering with tubercular disease of the bladder. His sufferings had been for over a year something terrible to witness. Opiates had been used, practically in vain, as he soon established a tolerance for each and all of them, and could take astonishingly large amounts of them without either stupefying him, or in the least mitigating his misery. The terrible suffering so wore upon him that his whole nervous system was shattered.

It was necessary, of course, to treat the bladder locally. Under hypnosis this could be accomplished without pain. Finally an exploration of the bladder became necessary, with a view of removing inflammatory material, which it was supposed had collected upon its walls, and interfered with the expulsion of its contents. As there had been other surgical procedures in the case, the patient was so worn by

these various attempts to relieve him, that we feared the sight of a strange surgeon might prove too much of a shock to his enfeebled nervous system.

At my request an eminent Boston surgeon was called and arrangements made to administer an anæsthetic. The man's condition was so feeble that we all feared that chloroform, ether, or gas, would prematurely end his life. I stated to the surgeon that I believed he could be hypnotized to such an extent that he would never know what had occurred.

Now, as every tissue about the bladder of the patient was, owing to its diseased state, as sensitive, possibly, as the human eye, every one familiar with bladder surgery will realize the depth of anæsthesia that must have been induced to obtain the following results.

The patient was thrown by suggestion, and by looking at a bright object, into a deep hypnotice trance. Let me say, in passing, that his temperature was 103·8 at this time.

After he had been thoroughly entranced a pre-arranged signal was given, and the surgeon entered the room. He explored the bladder thoroughly through a supra-pubic opening, investigated every part of it, and determined its size, and this by means of the sense of touch. Proper apparatus were adjusted for drainage, and the wound dressed. The surgeon left the

room, and when the young man was brought out of the hypnotic trance he did not know that any one had been in the room, and insisted that the hypnotism simply had made him feel a great deal better.

It is far from my purpose to appeal to the love of the marvellous inherent in the race, but, in the words of the surgeon who operated, the degree of anæsthesia obtained seemed to him "absolutely uncanny." That the patient did not pretend anæsthesia will be apparent, when I state that every surgeon who ever made such an operation, will testify that it would be, without an anæsthetic, one of the most painful in the whole category of major surgical operations. To illustrate the highly sensitive condition of the bladder, I shall state that from one-half to one ounce of warm water very slowly introduced through a syringe and catheter had previously caused the patient to shriek and have spasms of the whole body from the instense pain he suffered.

Hypnotism was used on this young man twice or three times a day, for a period of nearly four months, and the amount of pain saved is a little short of miraculous.

I have hypnotized, as previously stated, six women in childbirth. In one, instrumental interference became necessary by means of forceps. She claimed to be wholly unconscious of

what was done. One patient died, as was afterwards proved, from organic disease of the heart during labor, while in the hypnotic state. The death, however, was not due in any way to hypnotism.

Of my other four patients, three claimed to be wholly unconscious, and free from pain during the birth of their children, while the other one knew what was passing, but claimed that she experienced no pain.

Now while it is true that only a certain number of persons susceptible to hypnotization can be hypnotized sufficiently to be rendered insensible to pain, the fact that some such do, is an earnest plea of itself for its use whenever feasible.

It is my belief, from experiments, that this number can be made very much larger than hypnotists generally believe, by hypnotizing a number of times, prior to the operation, the person to be operated upon, so that the system will become accustomed to the deep trance. What percentage can be hypnotized to this extent I do not as yet know, but for that percentage, for that unknown quantity, I ask a fair hearing before the great bar over which scientific thought presides as a judge.

It is my purpose in this book to make it largely elementary, and I deeply regret that the limited space forbids my quoting more extensively from the writings of Bernheim, Moll, Liégeois, Luys,

King, Forel, and others. There is quite an extensive literature at the present time bearing on this subject, and upon kindred branches of hypnotism. Most of it is unfortunately too technical to permit of casual reading by the every-day busy man, and yet it is to the masses that hypnotism is of value, if it has any value. The judgment of it will not be left to any set of men, no matter how learned. Therefore, if I can in a measure make the ordinary phenomena of hypnotism clear, and enhance the appreciation of its uses, and give a fair understanding of its dangers, my labors will not have been in vain.

With reference to the department of surgery hypnotism has its place. It does not fill that place at the present time, owing either to the scepticism or the ignorance of those to whom it would be of the most value. I think a large amount of dentistry might be safely and painlessly done if hypnotism were used as an anæsthetic.

It is claimed that persons partially under the influence of chloroform can be hypnotized more readily and more deeply, than is ordinarily the case with a normal individual. Most persons when they begin to take ether imagine that the stupor produced by the drug is identical with that of sleep, and I have seen a person go to sleep when he imagined he was taking

ether, when only a sponge scented with a substance resembling it in smell was placed over the face, although the substance placed upon the sponge was practically inert.

The whole subject of the application of hypnotism in surgery is, then, notwithstanding the many attempts which have been made in Europe and America to solve it, as yet *sub judice*, and I earnestly hope that a widespread effort on the part of the surgeons, both in Europe and America, will bring about a more intelligent application of it and ameliorate much suffering which now goes unrelieved.

I cannot see the necessity of entering into the details of a larger number of cases in which hypnotism has been used as a surgical anæsthetic either by myself or by others. Any one wishing to further study the subject will find a very good description of it in Dr. Bernheim's book, "Suggestive Therapeutics."

One thing should be noted, however. In certain classes of diseases there is a great deal of pain following surgical operations. Persons are either left to bear this pain, or morphine is used for its relief. In every such case hypnotism should be tried thoroughly before resorting to the use of opiates.

CHAPTER X.

THE VALUE OF HYPNOTISM AND THERAPEUTIC SUGGESTION IN THE CURE OF DIPSOMANIA (CHRONIC DRUNKENNESS), MORPHIO-MANIA (THE MORPHINE HABIT), AND THE OTHER DRUG HABITS.

CIRCUMSTANCES have placed me in a position where I have been able to study carefully and extensively the subject of drink and other drug habits. I have investigated many of the cures which have been claimed both by the regular medical profession and the so-called irregular practitioners. I have carefully studied, also, the history of this subject, the great importance of which is everywhere recognized, and shall at some future day devote a book to this subject alone.

That all the systems of cure yet invented have failed of perfection, every intelligent man and woman knows, alas, too well. Various drugs have been vaunted from time to time as specifics for the alcohol habit. Each of them has offered testimonials in evidence attesting

its virtues. Each in its turn has failed to such an extent that the medical world is in a great measure sceptical of all of them. Religion, too, has taken up the question. Prayer-meetings have been and are being held over the whole Christian world, sermons and lectures against drunkenness are being delivered everywhere, and millions of devoted, noble wives and mothers have knelt in prayer and implored the Divine Giver of Life to shield their beloved ones from this terrible curse, and beneath the starry canopy of heaven, while kneeling in prayer, gazing perhaps earnestly into the faces of their little ones, they have heard, perchance, the night winds as they sighed and moaned, bringing, not the chorus of angels to their ears, but the wild mocking yell of the revellers as they came home poisoned both in body and in mind, by that wonderful destroyer, alcohol. Perchance many of them arose from their knees to admit to the sanctity of their homes their drunken husbands, sons or brothers, until, alas, by the debauch of these same husbands, sons and brothers, even the homes themselves melted away, and black poverty and wreck and ruin, the companions of the great king Alcohol, took possession of the fortress of love.

Again. Lame men walk our streets paralyzed from the abuse of this potent drug.

There are children born every day, cursed in their mothers' wombs by the dissipation of one or both parents. Our insane hospitals are crowded, our prisons are filled with the wrecks of this fearful agent. These facts prove beyond a doubt that the terrible disease has not yet been remedied, and I think the reasons are, first, that every system of treatment has, in a measure, failed to recognize the personal equation of the sufferer. I am glad to acknowledge the work done by the ministers of the Gospel, also the moral influence of many of the temperance organizations throughout this and other lands. Watching carefully the tide of social events I believe to-day that drunkenness is gradually growing less. Even in my short life I have seen, with pleasure, the change in the social world in the habit of drinking at entertainments of all kinds, and this change makes life brighter and better.

The young man, who, ten years ago, was admired and thought funny for being intoxicated at some social gathering, is to-day discarded by the better elements of society. While drunkenness may increase with the population, proportionately it has decreased. This is not due to any one factor, but to the aggregate work of the moral, religious, social, educational and hygienic factors which are so powerfully influencing our social well-being. It is to these and

not to any one medical agent that I look for the ultimate cure of the great evil of drink.

Whether alcohol can be used without being abused is too broad a question for discussion in this little work. How far it can be a factor for good in the social evolution of the race has not yet been determined. Sir William Roberts in his excellent little work, "Diet and Digestion," says that the use of alcohol, tea, coffee and tobacco, have been beneficial in strengthening both the muscles and the brains of the powerful western races who, he argues, have outstripped their eastern brethren in civilization and in intellectual attainments. If this be true we have bought our civilization at a fearful cost.

There are so many geographical, climatic, and race factors which enter into this question of the use of alcohol, that it will be impossible to more than casually glance at them here. It is true that alcohol acts less deleteriously upon those who live in the open air than upon those who lead a sedentary life. It may be true that those who work at hard labor can utilize and oxidize alcohol in some form as food, more readily than they can the articles which they usually eat, but I doubt it.

Thousands go through life and drink moderately and are, to all appearances, no worse off mentally or physically for the use of alcohol.

It is not to these that I appeal in this work, but to those who are addicted to the use of alcohol to such an extent as to impair or wholly destroy their usefulness and happiness.

How is the Alcohol Habit Acquired?

What are the factors which predispose certain individuals to the excessive use of liquor, while others work side by side with them, perhaps in the same occupation, and do not use it at all? Until this question is answered, no amount of medicine, no amount of treatment of any kind, will drive drunkenness from the land. Prof. Cesare Lombroso of Turin and others have studied the formations of the head, face and body, and believe by the study of the morphological department of anthropology that they have found a certain class of individuals who are what they term "degenerates." It is their opinion that the brain and nervous systems of these individuals have less resisting power and less capability of reasoning than have their more fortunate brethren. That this is true within certain limits, I believe. Degenerate nervous systems may be either inherited or acquired. One of the principal factors of degeneration is unquestionably the habitual use of alcohol. It is in a measure seductive to most persons. In moderate doses it stimulates the cerebral cortex and as a result, in the early

stages of alcoholic intoxication, there is a feeling of exhilaration or buoyancy. Conversation is more fluent, but less coherent. A poor man feels rich when in the condition of semi-intoxication, especially if he is in the bar-room surrounded by companions in a similar state. The bright glare of the lights reflected by mirrors, the noise, the gesticulations and excited conversation, all tend to heighten the effect which is, nevertheless, evanescent. Then the stage of stupor comes on, and, after it has worn off, with the morning comes misery, headache, tremor, thirst, and nervous irritability, all goading and harassing him. Again he seeks relief, and again whips his jaded nervous system with alcohol. Again it responds, if there is sufficient vitality left in it, and possibly the phantasmagoria of the night before are even heightened in their intensity, and so each succeeding stage of debility is, for a time, relieved by another debauch, and thus he traverses a vicious circle until outraged nature rebels, and his inflamed stomach will no longer tolerate the fiery poison, and the disordered brain and nerves conjure as children of their own disease, frightful demons, which haunt him night and day, until, either through medical aid or rest, his equilibrium is in a measure restored. Then, as the memory of his sufferings wears off, the elements of bodily and mental disease engendered by the previous

debauch cause him mental depression and, possibly, bodily unrest, and again he seeks relief, and again passes through the same cycle of joy and sorrow. This is the usual experience of the man who goes on sprees.

There is another class of men, who, while they do not intoxicate themselves to the extent just described, use a large amount of liquor every day. They keep it up for years, and die with some disease which results from the prolonged abuse of their systems. Possibly the heart may be exhausted, or the liver or the kidneys give out, or the weakened blood-vessels yield at some point in the brain, and apoplexy results. Or some contagious disease carries him off because he has burned up the resisting power of his system.

There is another class of alcoholics, the so-called real dipsomaniacs. These individuals are certainly mentally and physically degenerate, for if left to themselves they will consume as much liquor as they can get. One spree follows upon another in quick succession, until the victim is taken either to the mad-house or the prison, or until he wears out the lives of devoted friends in providing for his useless existence. There are many variations in this type.

From careful study and experience it seems to me that the larger majority, but by no

means all of the men and women who use alcohol to excess, possessed originally the so-called neurotic temperament (diathesis). In other words, their nervous systems were unfit to stand the wear and tear of life, and, directly or indirectly, they sought to make up for their weakness by stimulation.

That healthy individuals may induce by drink a similar condition of weakness is well known. Their systems are much more easily restored to the healthy balance, all other things being equal.

When the word neurotic is used it does not mean nervous irritability, for, as is well known, very phlegmatic people may have a very poor mental equipoise.

Having discussed in general the temperament and condition of those addicted to the alcoholic habit we now come to the question, what are the exciting causes which lead men to drink? They are legion. Association plays an active part. Among the causes are the habits of study and the class of books which men read. Too many novelists, alas! present to their readers enticing pictures or ludicrous descriptions of the effects of alcohol. The splendid novels of Dickens and Thackeray, and those of many other writers, possibly the majority of the writers of light fiction, are too often marred with conviviality in its most

seductive form. This is true in a greater degree of the poorer classes of books which are greedily devoured by the young. They naturally react upon sensitive nervous youths and arouse all sorts of curious imaginings in their brains. These fancies lead them to try the liquid magic, and the excited brain calls for more excitement, and more trashy romance is served up, with or without whisky.

In an extensive hospital and dispensary practice, I talked with a large number addicted to the excess of alcohol, and their familiarity with convivial writings was astonishing.

The mind, while it has certain tendencies, certain traits, which are inherent in it, surely is, to a great extent, moulded by its dealings and experiences with the external world.

Study everywhere the lives of the young and not one will be found that cannot be more easily poisoned by bad suggestion than benefited by good training and good example. While all sorts of tendencies exist in children, while in some the bad ones may be irresistible, more can be accomplished in curing them than has ever been dreamed of by those dealing with the social problems of the day.

It will follow from what has been said that if the alcoholic habit is acquired as the result of so many widely different causes, no one remedy can relieve all cases, not even hypno-

tism will prove a universal specific. Some of the newspapers have contained, within the last few months, a number of extravagant articles by men who knew nothing about the subject, advocating hypnotism as a universal cure for drunkenness. To one familiar with the disease in all of its many forms, the presumption and arrant conceit which many of these writers show, would be disgusting did they not produce results which are even more appalling. Men who never knew intimately a dozen intoxicated men in their lives, will write high-sounding phrases in praise of some great cure about which they know absolutely nothing. That this may, in a way, be productive of good I admit. That it may be productive of immense harm, is equally true.

Hypnotism has its place, and I shall endeavor, so far as may be, to make it clear. I have in twelve years treated 159 persons who were addicted to the excessive use of liquor. Ten of these cured themselves independently of hypnotism by the moral force of their own characters. Fifty-four were lost sight of because they would not attend to any system of treatment long enough to give it a fair trial. Nineteen of the remainder were dipsomaniacs, *i. e.*, they were inherently degenerate and gave evidence in a great many ways of mental unsoundness. Hypnotism, combined with physical restraint

and remedies directed to relieve the organic disease which existed in some of them, cured four of the nineteen. Of the remaining fifteen, four are dead. Six were in insane asylums, and the remaining five have been lost sight of. Out of the 159 cases, 124 of them were men. They ranged from nineteen to sixty-five years of age. Their average was forty-five. The total number of cases benefited was thirty-seven, about 23 per cent. ; the total number of cases apparently cured was twenty-nine, about 11 per cent. ; the total number treated by hypnotism alone without other remedial agencies was fifteen; the total number cured by hypnotism, unaided by medicine, was five. In nearly all of my cases, I cannot say what per cent., there were other bodily ailments. My notes show that three cases of dipsomania who died were afflicted with chronic Bright's disease when they came under my treatment. From these cases will be seen that a fair percentage of cures may be claimed.

A few persons, as I have said, recover by their own will from the alcoholic habit. If it could be stimulated early enough by hypnotic suggestion, I believe the number would be much larger.

I shall now report, in full, a severe case of dipsomania which was cured, and state the method used. The patient was a man thirty-one years of age. His grandfather upon his

father's side died insane. His father died of apoplexy, his mother of pulmonary tuberculosis. When five years of age he was confided to the care of his uncle, a clergyman. Family history on the maternal side of the house could not be obtained. His uncle described him to me as a very nervous child. He was quick in school, kindly and affectionate, and as a boy was universally liked. He developed well, went through the primary and grammar schools, and stood well in his class. He gave no evidence of the love of liquor until he was thirteen years of age. He was then brought home one night intoxicated. He was violent and was ill for some days after. His uncle used every form of moral suasion. Six months later he was found in the street hopelessly drunk. Bad matters grew worse. He failed in the high school in most of his examinations, and the drink habit continued to increase upon him.

At twenty-five he came into possession of a large fortune left him by another uncle. He voluntarily submitted to placing his money in trust, realizing his own weakness. For two years afterwards he drank heavily, and was placed in an asylum for the insane. He remained there one and one-half years, and was discharged. He evidently believed that he was cured, but soon lapsed into his old habits.

When I saw him, in the spring of 1888, his

nervous system was in a very diseased state, but not so much as would have been expected of one who had taken the amount of liquor he was accredited with consuming.

The patient was readily hypnotized at the second sitting, and while in the hypnotic state was told that he would not have any craving for whisky, or any other alcoholic drink, for a period of two weeks. This suggestion did not affect him, however, for he was intoxicated in four days. After he had been captured from the slums, and somewhat restored to health, he was again hypnotized, and given a pill composed of some inert substance. He was told that this pill would take away his appetite for liquor for a period of three days. At the end of that time he was to come to me for another. This he did. He was again hypnotized, and another similar pill was given him. He was told that after he was awakened pills would be given him, of which he would take one each day.

The patient was hypnotized once in three weeks for twenty visits. During this whole period he did not drink. His mental and physical condition improved. He received, after the twentieth hypnotic treatment, a severe shock from the death of his mother, who died, as was previously stated, with tuberculosis. Immediately the thirst for drink returned. He

came to me again and begged of me to protect him, as he said he was afraid he would drink and could not control himself. He was again hypnotized and was kept under observation two weeks. He was last heard of in the spring of 1893, and was at that time in Germany studying painting, and had been wholly free from the alcoholic habit.

The next case which I shall report as illustrating the action of hypnotism was that of a man addicted to periodical sprees. He was a mechanic, well-developed physically, forty-three years of age, was married and had three healthy children. No organic disease could be detected about him. Every three months, regularly, he would have a spree lasting two weeks. He explained to me that he felt no physical desire for liquor, but had a mental impulse to drink which became a fixed idea, and was impossible for him to resist. This idea usually possessed him about four days before he yielded to it. I told him to come to me as soon as the idea came upon him. This he did. He was told, in the hypnotic state, that the idea would vanish. It did not. He told me honestly the evening after he had been hypnotized, that the impulse was growing upon him, and he feared that he must yield. Again he was hypnotized, and was told that he was *a man* and had will enough to resist it, and that he would walk six

times up and down before a liquor store and would not go in. As soon as he was aroused from the hypnotic condition he did as he was told. He was secretly watched by his brother, who did not drink. He wrote me next day that the desire for drink was entirely gone. At the end of the following three months he again consulted me, stating that the idea was haunting him, but not quite to such an extent as previously. One hypnotic treatment was sufficient to dispel it. At the end of the following nine months he again returned, stating that he had drank a glass of whisky with a friend, and that the old idea had returned. He was hypnotized, and since then, a period of three years, he has had no desire for drink.

Now, after reporting these two very favorable cases, it is but just and right that I should report failures when such exist.

One case, a lawyer, thirty-seven years of age, was a constant drinker, taking something like eight drinks of whisky each day. He was readily hypnotized, more so perhaps than the two in which hypnotism was beneficial. He was told that the appetite for liquor would vanish. As this did not prove to be true, the pill-experiment was tried upon him. Then suggestion when he was out of the hypnotic state was tried. Then suggestion while in the deep trance was tried. Medicines were given

him, hypodermic injections of strychnine were used, and after thirty-six hypnotic treatments I gave the case up, and he was apparently no better. He subsequently went to one of the well advertised cures for alcoholism. He informed me that he drank while at the institution and had done so ever since. I heard within a year that the man was taking a prodigious amount of liquor, averaging from fifteen to eighteen drinks of one kind or another during working hours, and imbibing freely of whisky whenever he awoke, which was frequently, during the night.

The question might be asked, why did hypnotism fail here? Frankly, I do not know. The man was easily hypnotized, claimed to be earnestly desirous of a cure, stated that he used all of his will, but yet, up to the present time, all treatment upon him has failed.

Another notable failure was that of a man, also a lawyer, forty-eight years of age. He said that he had no particular desire for liquor, but drank it because he wanted to. Professed great scepticism with regard to being cured of the habit. Was hypnotized after the fifth trial. Was told that liquor would produce nausea whenever he attempted to drink it, and was released from the hypnotic state.

That evening he dined with friends, partaking freely of champagne, and was nauseated and

vomited profusely. He drank some whisky the following morning with a similar result. Again he was hypnotized. Was told that one glass of whisky would make him almost insensible, and that he would be unable to walk if he drank it. That afternoon he proceeded to try the experiment. Again the whisky nauseated him, but it did not trouble his gait. He then declared that no man should control his stomach and he would drink what he chose. He drank a large amount of liquor that evening and kept a good deal of it down by holding ice in his mouth. He went home beastly drunk, and afterwards I tried many times to hypnotize him, but never could do so. Whether or not in his normal state the man was determined to drink I cannot say. Certain it is that he did so.

Summing up the result generally, hypnotism has succeeded best upon the class of men who have been trained to obedience. I have notes of more cures by hypnotism among the less intelligent classes. It has failed more often in the highly educated. The reason for this may be that the more educated have more temptations.

There is a class of men who drink from sheer habit, who have not carried it to such an excess that it has undermined their general systems, and who can be cured if a strong

appeal is only made in the right way. I have treated a dozen or so of these individuals, and as they were all easily cured, I did not include them in my table of bad cases.

There are many men in society who drink because of their associations. They can and ought to be saved by moral suasion, and with them it is not necessary to use hypnotism.

In conclusion, hypnotism is of use in a certain number of alcoholic patients. It may succeed alone, or as an adjuvant to other methods. It is my opinion that it should rarely be depended upon alone. In addition to removing, so far as possible by hygiene and medicine, all physical disease, the whole of the moral nature should be impressed by every possible means.

Morphio-mania and the Other Drug Habits.

Twenty-two persons addicted to the morphine habit have been hypnotized by me. Out of this number seventeen have been cured. Hypnotism alone was used in four cases of these seventeen. The others were treated by hypnotism supplemented by medicines which would tone the nervous system. All of my twenty-two cases contracted the habit as a result of physicians prescribing the drug. All of them could be hypnotized. The worst cases were cured the most easily. Much of the suffering incident to the sudden abandonment of the morphine habit

can be relieved by hypnotism. The use of morphine or any of the preparations of opium seems to make the subject more sensitive to hypnotism. Of the seventeen cured, eleven were women and six were men. Of the remaining five, two were lost sight of. One died from cancer of the stomach, and the remaining two are confined in hospitals for the insane. They were practically insane when I first saw them.

It would seem, then, that hypnotism certainly promises a great deal to those suffering from this terrible habit; yet the number of my cases is too small to permit of sweeping assertions. With the cocaine habit I have had no experience. I have treated six cases addicted to the chloral habit. Five were cured, it requiring an average of three hypnoses each to do this. My sixth case died from an overdose of chloral which he took after the first hypnotization. It is needless to add that he did not take the chloral as a result of the hypnotization, but because he had a severe headache.

I have treated forty-six cases for the tobacco habit, with forty-two cures, and four pronounced failures. Of my forty-two cures, the average length of time of the use of tobacco was nineteen years. They were all in hearty accord with me, and had unbounded faith that they would be helped. They all claimed that

after the first or second treatment they had no desire for tobacco. Personally, however, I believe a large amount of this to be due to their great faith. A gentleman of my acquaintance voluntarily stopped the tobacco habit, having sufficient faith in his own will-power, although he was then forty-six, and had used it excessively, smoking sixteen cigars a day a large part of the time from his sixteenth year.

Imagination is a potent factor in both the formation and cure of many evil practices. I have seen a few cases of very severe suffering as a consequence of the sudden abandonment of tobacco. With many persons the habit clings very strongly. Plenty of fresh air, and a simple diet composed largely, but not exclusively, of vegetables, mitigate the suffering. This is also true of the opium habit, if the patient is not too profoundly prostrate.

Moral resistance is the element of hope in all these cases. Sometimes it can be roused by hypnotic suggestion when all other means fail. Because of this and for the sake of wider experience, I plead earnestly for a more extended trial of it.

CHAPTER XI.

HYPNOTISM AS A CURE FOR ILLUSIONS AND HALLUCINATIONS.

THE following definitions are taken from Dr. Ireland's work entitled, "The Blot upon the Brain."

He says, "Illusions are erroneous interpretations of real sensations, that is, sensations originating from changes in the outer world acting on some part of the nervous system. Thus, a man mistakes a rock for a tower, or the play of the moonlight through the forest leaves for running water, or a sheet hung up for a ghost. In these instances the mind has been too rapid in its forecast, either by following the line of habit acquired in cases outwardly similar, or by yielding to the suggestions of hope and fear, or by following the fallacies of a disordered mind.

"A hallucination is a perception of a sensation arising from changes within the organism without any corresponding change in the outer world. It is a perception that has no object. Hallucinations have been divided into 'element-

ary' and 'elaborated.' Thus, a flash of light, or a sound in the ear, is a simple hallucination; but if a man believes he sees a figure or hears a voice which has no outward existence, it is an elaborated hallucination. This subjective irritation of the optic or auditory nerve appears to him to be the same as the image of some figure or sound already existing in his mind."

This part of my subject will be a very difficult one for the lay reader to grasp, and hallucinations have played so important a part in the history of the world that it seems to me that the general public should have a better understanding of them. They do not occur in the violently insane alone. Probably very few sane people go through life without some time or another experiencing either hallucinations or illusions, or both. They have been mistaken for supernatural appearances. Voices originating in the brains of men have commanded them to do hideous things, and whole systems of religion have arisen as products of a diseased brain, caused possibly by an undigested beefsteak. Wills have been made, homes broken up, and lives wrecked, because these fancies were mistaken for Divine utterances. Voices, children of a perverted imagination, tell us queer things by night. Our dreams make up a large integral part of our consciousness.

Before proceeding let us consider what we

mean by certain words which will be used in this chapter.

Imagination is, 1. The image-making power of the mind, the power to create or reproduce ideally an object of sense previously perceived ; the power to call up mental images. 2. The representative power ; the power to reconstruct or recombine the materials furnished by direct apprehension ; the fancy. 3. The power to recombine the materials furnished by direct memory for the accomplishment of a purpose. 4. A mental image formed by an action of the imagination as a faculty.

From the foregoing definitions it will be clear that hallucinations arising from the imagination are very complex indeed. If we associate with the word "imagination" the word "voluntary" our conception will be at once changed. Who cannot call up at will the face of some loved one, who has either gone to death's dateless night, or who is journeying in some far-off land ? Memory, the twin sister of imagination, when acting in concert with her, can produce anew upon the mind of an old man the glorious imagery of his childhood, and he lives again the joys of his youth. Hallucinations are not always, in fact are very seldom, the result of the voluntary exercise of imagination.

An eminent physician became insane and suffered many and varied hallucinations.

After being restored to health he says : "The only influence which the will had over the hallucinations during my illness was that it could place me in a favorable position for receiving them." He says it never succeeded either in intentionally calling before him hallucinations, or in changing a recollection or a product of the fancy into a hallucination, or in recalling by will one which had recently appeared to him. Hence, apparently, the view of Lelut, that hallucinations are simply thoughts, is erroneous.

Hallucinations are very common among those who are partially insane. They occur as a result of fever and frequently accompany delirium. They result from an impoverished condition of the blood, especially if it is due to starvation, indigestion, and the use of drugs like belladonna, hyoscyamus, stramonium, opium, chloral, cannabis indica, and many more that might be mentioned.

Probable Physical Causation of Hallucinations.

Dr. Bouchard of Paris has carried on experiments for a number of years which prove that there are many poisonous products, formed during the process of digestion, which act upon the brain in a similar way to many of the drugs mentioned. Now, if digestion be arrested at a certain stage, these products pass into the blood,

act through it upon the cells of the brain, and weird fancies, strange voices, and queer forms haunt the habitations of the mind. Some of these so-called alkaloids have been isolated and their physiological action studied. Also, recently, a substance has been found in the secretions taken from patients suffering from melancholia, which, when injected into animals, gives rise to phenomena which are similar to, if not identical with, those observed in this form of insanity among men.

The whole theory of auto-intoxication promises to throw much light upon both the cause and the treatment of many obscure mental diseases. It is well known that there are substances formed as a result of putrefactive changes in dead bodies which are highly poisonous. Some of them belong to the so-called nerve-poisons. Some are irritants of the mucous membrane. It is now equally well established that many substances are thrown off by the secretions from the live body, which will act in the same way as substances formed after death.

Prof. Bouchard has proved that during the waking hours a person secretes a substance which is carried off by the urine, and when this substance is injected into the lower animals, it causes them to sleep, and, strange as it is, this eminent professor has found, by experimentation, in the urines passed off by sleeping persons,

a substance which acts as a cerebral excitant, producing, when injected into the lower animals, delirium, insanity and convulsions. These substances he succeeded, by the use of alcohol and other chemical means, in extracting from the urine, purified many of them and affixed names to them.

Truly we carry ever with us, in our own bodies, substances which, if not eliminated, may not only kill us, but may act upon some part of the brain and disorder its function and disturb its harmony, and then insanity with all of its hallucinations and illusions follows. This at present is the theory of the most scientific men of the day. Every nerve-cell, aye, every protoplasmic cell of the body, forms substances as a result of its living activity, which, if allowed to accumulate in or around it, at first interferes with and then finally destroys it. The brain forms by its own activity substances complex in their nature, which if allowed to accumulate within, at first disturb, and finally destroy its operations.

This much was necessary before I could make intelligible a rational application of hypnotism in this class of patients. Admitting, then, the physical theory of the causation of insanity to be mainly true, admitting that substances in the blood may poison the brain and disorder its functions, admitting that each cell

of the brain develops substances which if not eliminated are poisonous to it, how can hypnotism be of value in treating this class of diseases? Can so intangible a thing as suggestion exercise an influence over the complex biological chemistry of the brain and body? Most certainly. Charcot, Luys, Liébault, Bernheim, Krafft-Ebing, and others, many of whom are acknowledged to be the best authorities in Europe, if not in the world, upon mental and nervous diseases, all testify and are in accord about a few of the following facts. First, hypnotism can, by soothing an over-excited brain, cause the blood supply in it to be diminished, and rest follow delirium. Faculties unaccustomed to obey the will can be trained to obedience.

It is generally believed by most psycho-physiologists that different parts of the brain can act independently, and in this way produce a great many varieties or states of consciousness, hence the terms "subconscious," "dual-consciousness," and many other similar ones.

Now, when one part of the brain is acting abnormally it may be checked or inhibited by the other parts of the brain. Each cell of the brain has a certain degree of vitality which can be expended rapidly or slowly according to the circumstances. Suppose the brain by its activity to be evolving as the result of the destruction of its own cells, substances which act

as poisons and which interfere with or pervert its action. By quieting this activity, the blood circulating through the brain will have an opportunity of removing and disposing of the before-mentioned toxic (poisonous) products. Hence it follows that hypnotism may act as a great regulator of the brain and nervous metabolism.

The authorities quoted *en masse* practically agree that by concentrating the mind intensely upon any part of the body, various changes take place in that part, both in its sensation, in its blood-supply, and in its nutrition. Tell the hypnotic subject that a part of the body is freezing, and immediately the phenomena popularly termed "goose-flesh" appears. Apply a metal and tell him it is hot, and he not only believes that he is being burned, but, according to Bernheim and others, actual blisters on the part will appear.* The part will grow red or pale at the command of the hypnotist.

The bowels too will move at a definite hour stated by the hypnotist when his patient is in the hypnotic state. The suggestions will act for 24 or 36 hours afterwards. Chemically inactive substances will nauseate and produce

* NOTE.—I personally have never seen a blister produced as the result of suggestion, but have witnessed the other phenomena described.

vomiting, and when ordered will intoxicate like whisky; and what is more pertinent to this chapter, hallucinations, illusions, and delusions, may be created, or in many cases destroyed, at the pleasure of the hypnotist. Hence it follows that no spiritual or magnetic theory is necessary to account for, or to give a reasonable explanation of, the curative effect of hypnotism.

The terms nerve-force, vital fluid, etc., are perhaps as vague, at least we know as little about them as we do of animal magnetism and other allied terms.

It is true that hypnotism will cure some cases of insanity which are accompanied by hallucinations and illusions. It will relieve these same conditions when occurring among sane people as a result of some local or general slight disorder.

Again I must urge upon my readers, whether they be medical men or laymen, the utter folly of relying upon hypnotism without attending to all other methods of hygiene and medicine which have been and are the glorious achievements of the best medical thought of this and other ages.

Enthusiasm, like scepticism, is a good thing. In this most fascinating study both should be held in check by a firm, strong judgment ever regulated by reason and experience.

Hypnotism, as has been said before, may be a palliative in some incurable cases, as well as hasten the recovery of those so fortunate as to be susceptible of entire relief. A clear comprehension of the whole subject by the intelligent classes would greatly diminish the amount of fanaticism which is so deleterious to a large number of individuals. We do not need miracles or revelations to explain phenomena which can be and are susceptible of explanation upon a hypothesis which is based upon experimentation.

I shall cite two cases widely different, illustrative of the utility and of the method of applying hypnotism, in cases of mental disorder.

Case 1. A German, fifty-one years of age, male, habits temperate, family history bad. Mother insane, father alcoholic, father's father epileptic, grandmother on father's side tuberculous. One brother suffered with paranoia, and sister profoundly hysterical. One of his children was an imbecile, the other tubercular. The patient himself was of even temper, kindly, and was a baker by trade. He told me that whenever falling asleep he saw a white horse leaning over him, and that the horse pulled at the bedclothing with its teeth and awoke him. This condition of things had lasted for years, when one day he had a sensation as though

some one were stealing upon him. Turning around quickly he saw the white horse reach out to bite him. He knew perfectly well that his condition was an hallucination, but it made him feel very uncomfortable nevertheless. He subsequently began to hear voices, some speaking to him kindly, some harshly. His physician advised rest and change, but his demons followed everywhere. He never for one moment believed them to be real, and understood his condition thoroughly. He went as a voluntary patient to a private asylum in New York State, and remained there for three months. Medicines were tried upon him, and everything known to the physicians in attendance was done for his relief. But he could not get rid of the hallucinations.

He consulted me in the spring of 1891. Was hypnotized at the eighth sitting. Was hypnotized subsequently three times a week for eight weeks. The first hypnotization changed the nature of the hallucination, and after the third one his nervous system was much disturbed. He became hysterical, the most profoundly so of any one ever under my observation. One day his right arm would be paralyzed, in a day or two the paralysis would change into the left. For a week or ten days he would vomit everything he ate. Each manifestation was in turn immediately subdued by hypnotism,

and at the end of eighteen weeks he presented no abnormality, and, as far as I know, not having heard from him for over a year, the hallucinations have not returned.

Second patient was a little girl of neurotic family history. She stated that playmates invisible to others haunted her night and day. Some of them were kindly, others teased her for her playthings, called her horrid names, while others spoke in a language she did not understand. The little one was pale, exceedingly irritable, and would hold conversations for hours at a time with the imaginary spectres. Remedies were given her for her bodily condition, and although it improved, the morbid fancies grew stronger. She was hypnotized at the first sitting, all hallucinations vanished at the third sitting, and she remained well for eight months, and then contracted pneumonia and died.

I have treated with hypnotism eight cases representing various forms of hallucinations. Five with complete success, one with partial success, and I experienced total failure with the other two. Authors vary widely in their results. Some, like myself, have had very good results, others fairly good. All believe in its value.

The subject has been exceedingly difficult to make clear without the use of technical

terms. Hence, if the lay readers find it too complex and the profession too elementary, I shall ask them to realize, each in his way, my difficulties, and show all the indulgence that they can.

CHAPTER XII.

THE APPLICATION OF HYPNOTISM TO FUNCTIONAL AND ORGANIC DISEASE IN GENERAL.

It will be my purpose again in this chapter, for the sake of clearness, and for the benefit of the general reader, to divest the subject, as far as possible, both of technical terms, and of theoretical considerations. The latter, in fact, would not prove, in the light of our present knowledge, much of a loss even to the medical men.

I shall quote a number of cases from the well-known Dr. Bernheim, and as they are perhaps more remarkable than my own experience, I shall introduce him to my readers.

Dr. Bernheim, the author of the book, "Suggestive Therapeutics," which has been translated by Christian A. Herter, M. D., was a Professor of Medicine in the faculty at Nancy.

His work has won for him well deserved renown everywhere, and his honesty and truthfulness would not be questioned by any reliable medical authority in the civilized world. Many

may differ from him in regard to his theories. He, like other men, may at times have been deceived in his results. What he writes is indeed difficult to believe by the practitioner who is wedded to drugs, and to the coarser ideas. Of a very sceptical nature myself, many of his statements sound like miracles in some ancient oriental work. The phenomena he claims to have obtained through hypnotism, are to me more miraculous than any claim ever put forth for the cure of disease by any system of religion now extant.

As far as space will permit I shall cite briefly some few of his cases, practically without comment, merely using my own language sufficiently to make the otherwise technically difficult descriptions of this author clear.

For more extended information I refer the readers to his book, "Suggestive Therapeutics," as before mentioned.

The book is, in my judgment, the best medical work on hypnotism and therapeutic suggestion which has ever been written in any language, and my acquaintance with this class of literature has been a very large one.

Method of Application.

Suggestions are made to patients either during or after hypnosis. The theory is that hypnotism increases the susceptibility of the patient to

suggestion. If the reader understands that, he understands more than I do. To say that the man gets well because he is told to, gives no explanation whatever of the ultimate cause of the experiment, for our old conceptions of disease, which are inherent in the very idea of disease itself, teach us that disease may effectually do away with the normal obedience of the body or the mind to environment, at least its relations to such are disturbed. Say that it stimulates the will if you please. How? Mothers have been cured of serious functional diseases by one or two hypnotic treatments, when their children were growing up around them, and feeling sadly the neglect of their daily care. Their homes, which should have been made bright by their love, were dark and desolate for the want of woman's thoughtfulness. Ought not these to be more powerful stimulants of the will, than could be a suggestion made to them in a particular state of the nervous system? Again, invalids lie imprisoned on their backs in one room for years at a time, and, strange as it may seem, recover after one or two hypnotic treatments. Does it not seem reasonable to suppose that all nature would have charms for these men and women greater than the power of hypnotic suggestion?

We are told it is faith. What is faith? It has made martyrs. It has made villains. It

has made saints (?) as well. It must precede every positive act of human life. True, of its essence we know nothing. A certain medico-religious sect, calling themselves Christian Scientists, tell us that we have no bodies, that there is no matter, that disease is not a reality at all. If this be true, then the other necessities of life are only delusions. Now I have found from my observations of these people that they eat and drink, live in houses, wear clothing, and avoid bad weather, and, except for their peculiar ideas upon this one topic, act much like other folk. They effect cures, apparently, upon the same class of persons, and it is a large one, as those benefited by hypnotic suggestion and simple suggestion. Prayers have at different times apparently given the same result. Shrines and statues have done likewise.

In the face of such an accumulation and variety of evidence as history offers, one cannot doubt the result, whatever may be his or her opinion of the causes which lead to it.

Every one who has practised medicine for a little time and heard the stories told by many chronic invalids who have tried faith healing, Christian Science, etc., will realize keenly the fact that these methods, like the regular practice of medicine, all fail egregiously. They give us as little reason for success or failure as

does the regular practitioner of medicine in such cases. His drug will make one man sleep, and the same dose will make another violently delirious, and it will nauseate a third, and provoke a violent skin eruption on the fourth. I know of one man who assures me that a severe neuralgia was cured by prayer. Many others assure me that they have been made better or cured of various diseases through the agency of Christian Science. Another assures me that he was very nearly killed by Christian Science, while his next-door neighbor says it is the one grand truth in the world. What the difference is, or why such diverse results are obtained, I shall leave to the ingenuity and greater intelligence of my readers.

Paracelsus, who lived in the first half of the sixteenth century, recognized the power of faith and said of it: "Whether the object of your faith be false or real you will nevertheless obtain the same effects. Thus if I believed in St. Peter's statue as I would have believed in St. Peter himself, I would obtain the same effects that I would have obtained from St. Peter;—but that is superstition. Faith, however, produces miracles; whether it be false or true faith, it will always produce the same wonders."

It is the opinion of most of the European observers that all of the results attributable

to treatment by magnets, charms, magnetized and electric belts, etc., are primarily the result of suggestion.

Drs. Liébault and Bernheim have proved that most, if not all, of the results obtained through these various articles, are not due to anything inherent in them, but to the faith of the patient. Dr. Bernheim does not wholly subscribe to this.

Therapeutic suggestion is not in any way a discovery of our present age. What is new is its scientific mode of application and its recognition and adoption by general medicine.

Dr. Hack Tuke, in speaking of the effect of imagination during sleep, reports a case. He says, "The daughter of a consul at Hanover, aged sixteen, intended to use rhubarb (for which she had a particular dislike). On the day following she dreamed that she had taken the abhorred dose. Influenced by this imaginary rhubarb, she waked up and had five or six easy evacuations."

A similar result is reported in another case. A monk intended to purge himself on a certain morning. On the night previous he dreamed that he had taken the medicine, and consequently waked up to yield to nature's demands. He had eight movements.

The following is a case illustrative of the power of prayer. The Princess of Schwartzen-

burg had suffered for eight years from paraplegia, for which the most celebrated doctors in Germany and France had been consulted. In 1821 the Prince of Hohenlohe, who had been a priest since 1815, brought to the princess a peasant who had convinced the young prince of the power of prayer in curing disease. The mechanical apparatus which had been used by Dr. Heine for several months to overcome the contracture of the limbs was removed. The prince asked the paralytic to join her faith to both his and the peasant's. "Do you believe you are already helped?" "Oh, yes, I believe so most sincerely." "Well, rise and walk."

At these words the princess rose and walked around the room several times, and tried going up and downstairs. The next day she went to church, and from that time on she had the use of her limbs.

In the first case quoted it does not seem reasonable to me to attribute the movement of the bowels to the dream. I think it more likely that the intestinal disorder provoked the dream, and that the purging was the result of a disease and not the effect of a dream.

Dr. Bernheim says, "Hypnotism, like natural sleep, exalts the imagination, and makes the brain more susceptible to suggestion. The strongest minds cannot escape from the hal-

lucinatory suggestions of their dreams. It is a physiological law that sleep puts the brain into such a psychical condition that the imagination accepts and recognizes as real the impressions transmitted to it. To provoke this special psychical condition by means of hypnotism, and to cultivate the suggestibility thus artificially increased with the aim of cure or relief, this is the rôle of psycho-therapeutics."

A case of probably hysterical paralysis is quoted by Dr. Bernheim as follows :

" Marie Lanou-Domeuge, twenty-four years of age, had been troubled for three years with incomplete paralysis of the whole left side. She could not take a step without help.

" Hearing Massabielle spring spoken of, the peasant sent some one to Lourdes one day to bring a little of the healing water from the source itself. She was helped to get up and dress. Two people lifted her and she stood, both of them supporting her by the shoulders. Then she stretched out her trembling hand and plunged her fingers into the glass of water, made a large sign of the cross, put the glass to her lips and drank the contents slowly. Then she straightened herself up, shook herself and cried in triumphant joy, 'Let me go, let me go quickly ! I am cured ! ' And she began to walk as if she had never been paralyzed."

The following Dr. Bernheim reports, which

demonstrates the power of hypnotism over muscular rheumatism.

"A child was brought to me with a pain, which pain dated back four or five days, like muscular rheumatism in the right arm; the arm was painful to pressure. The child could not lift it to its head. I said to him, 'Shut your eyes and go to sleep.' I held his eyelids closed and went on talking to him. "You are asleep and you will keep on sleeping until I wake you up. You are sleeping very well as if you were in bed. You are perfectly well, and comfortable. Your arms and legs and whole body are asleep and you cannot move." I took my fingers off his eyelids and they remained closed. I put his arms up and they remained so. Then touching the painful arm I said: 'The pain has gone away. You will have no more pain; and when you wake up you will not feel any more pain. It will not come back any more.' In order to increase the force of suggestion by embodying it, so to speak, in a material sensation, I suggested a feeling of warmth—*loco dolenti*. The heat took the place of the pain. I said to the child, 'You feel that your arm is warm; the warmth increases, and you have no pain.' I woke the child in a few minutes; he remembered nothing. The sleep had been profound. The pain had almost completely disappeared. The child lifted the arm

easily to his head. I saw the father on the days following and he told me that the pain had disappeared completely, and that there was no return of it."

The next case, which is of profound interest, is that of a working-man. He was fifty years old, and had been in the hospital several times.

The observations referring to his case will be given later on. For several days he had an ulnar neuritis characterized by contraction in flexion of the three last fingers of the hand, a complete anæsthesia in the entire ulnar region, twinges of pain along the path of the nerve, and pain along the olecranon groove. I hypnotized him. In a few seconds he fell into a complete relaxation. Suggestive catalepsy and somnambulism were present. At different times I suggested the relaxation of his hand, the return of sensibility, the cessation of pains. I ran a needle into his forearm saying, "You are going to feel." In a few minutes the feeling came back again, and the fingers unbent. When he awoke all the phenomena of the neuritis had vanished.

I have seen a number of cases of this disease. As is well known to all physicians the ulnar nerves control sensation and motion to a certain extent on the side of the hand next to and including the little finger. When this nerve becomes inflamed, when the condition of neu-

ritis exists, the patient suffers intensely from the pain and numbness. This disease in a patient of mine completely broke down his self-control and made a weakling of a man who, when well, was powerful, both intellectually and physically.

Dr. Bernheim says, "These examples relate to actual observations. However singular they may appear they are nevertheless facts." He says, "In these cases, sometimes the pain persists, or is simply diminished; it may gradually disappear after two or more treatments. In other cases it may be diminished when the subject awakes, and may continue growing less until it disappears without a new hypnotization. If not, a new suggestion may succeed, especially if a deeper sleep be induced. The pain taken away for the moment may return in several hours or later, and may only yield definitely after a variable number of hypnotizations. Finally, only certain troubles among those complained of may be effaced. The others resist the attempt. We can understand that the effect obtained is subordinate both to the subject's suggestibility and to the psychical cause which determines the symptoms. Muscular pains, the painful points in phthisis, certain dynamic contractures, even though bound up with organic affections of the nervous centre, certain movements which remain after chorea, incontinence of urine, which children

suffer from at night, etc., often disappear as if by enchantment after a single suggestion or after several."

He also says, "The mode of suggestion should be varied and adapted to the special suggestibility of the subject. A simple word does not always suffice in impressing the idea upon the mind. It is sometimes necessary to reason, to prove, to convince ; in some cases to affirm decidedly ; in others to insinuate gently ; for in the condition of sleep, just as in the waking condition, the moral individuality of each subject persists according to his character, his inclinations, his special impressionability, etc. Hypnosis does not run all subjects into a uniform mould, and make pure and simple automatons out of them, moved solely by the will of the hypnotist ; it increases the cerebral docility ; it makes the automatic activity preponderate over the will. But the latter persists to a certain degree, the subject thinks, reasons, discusses, accepts more readily than in the waking condition, but does not always accept, especially in the light degrees of sleep. In these cases we must know the patient's character, his particular psychical condition, in order to make an impression upon him."

Another case reported by the same author was that of a hysterical woman, who went easily into somnambulism (this term is used

synonymously with hypnotism or rather denotes a particular stage of hypnotism), but in this condition she often complained of discomfort, pain, and oppression; then sometimes an attack of hysterical sleep, in which the patient ceased to be in relationship with the operator, replaced the hypnotic sleep. Affirmation alone did not succeed in dissipating this uncomfortable precursor of a crisis. He succeeded by means of a musical diversion; he made her hear a wonderful suggestive orchestra. (In the hypnotic state the patient will hear any sound suggested by the operator, the sound existing, of course, only in the imagination of the patient.) As she adored music, her face became radiant, she beat time with her hand and all discomfort vanished.

As there was no music save in the mind of the patient it would have been of interest had Dr. Bernheim noted what rhythm she indicated with her hand.

I cannot but feel impressed in reading carefully the work of Dr. Bernheim, which I have quoted, that he is sometimes led away from accurate scientific observation by his enthusiasm, and is unwittingly deceived as to his results. Too much care cannot be enjoined upon those investigating the phenomena of hypnotism not to be deceived by hysterical states of the subjects, who, I have found,

frequently simulate that which they do not feel.

Dr. Bernheim is in accord with me in questioning the infallibility of therapeutic suggestion. He writes, "Therapeutic suggestion is not infallible, though it gives good results in a large number of cases. It may even fail when it is intelligently and persistently managed. The cause of failure is inherent sometimes in the disease, sometimes in the subject."

The following cases of hysterical persons Dr. Bernheim has found not to be benefited by hypnotism. They are cases of melancholia, some cases of hypochondria, and certain neuropathic cases.

Hypochondriacs simulating as they do diseased conditions, it seems rather singular that hypnotism should prove of so little value in many such cases. The following case will illustrate the condition well.

"I recently had to treat a young woman who was hypochondriacal. Among other troubles she had a violent pain in the epigastrium which she believed to be connected with uterine cancer, although she had been repeatedly told that there was no lesion there. I succeeded in hypnotizing her enough, and sometimes even in obtaining a profound sleep. I hypnotized her for ten days, and by energetic suggestion succeeded in quieting the pain.

But she hastened to add that the pain would return, and in fact it did come back, involuntarily evoked by her diseased imagination."

It is my belief that the pain complained of in Dr. Bernheim's case just quoted, is a sensory hallucination, probably provoked in the same way that hallucinations of sight, hearing, etc., are provoked.

Organic Disease of the Nervous System.

Dr. Bernheim shows that hypnotism removes many of the symptoms attending organic disease of the nervous system, paralysis, anæsthesia (insensibility to touch and to pain), blindness from brain-injury, severe pain, etc. His theory of the matter is that many of the results of the injury reach much further than the actual anatomical limits of it, and as the higher cerebral centres control the lower, they again train other parts of the nervous system to perform vicariously the function of the injured part. Hence paralysis of one part or the whole of one side of the body can be either ameliorated or wholly relieved by treatment with hypnotism. (For record of cases see Bernheim's "Suggestive Therapeutics," page 217.)

Records similar to Bernheim's have been published by Charcot, Liébault, Braid, Mesmer, Krafft-Ebing, and pre-eminently by Luys. These gentlemen are all careful observers and

their position in the medical world, together with their thorough scientific education, will give weight to their testimony. The early investigators of these subjects, like the pioneers of every new science, were shining marks for every sort of abusive epithet, and for their devotion to science were called insane, termed rascals, were branded as charlatans—in fact, had exhausted upon them the whole magazine of vituperative abuse. The Church settled the whole question to its satisfaction, at least, for the time, by announcing that they were the special emissaries, and in the service of, His Satanic Majesty.

To-day hypnotism holds a respected place in the scientific world, but its nature, like the nature of most mental phenomena, is not understood, yet it has done and is doing much good. In the United States it has not received, either from the public or from the medical practitioner, the study which it deserves. A long narration of cases is wearisome to the general reader, yet, at the same time, they are necessary for the practitioner of medicine, since he cannot judge in any way of the accuracy and method of the observer unless cases are given in detail.

I have had, of course, a much smaller experience than have some of the European hypnotists, but I shall enumerate a few cases in detail and shall select the diseases most often

met with by the physician in general practice. Those which are not amenable to cure by the ordinary means at the command of the practitioner, will be given the most prominence. I shall, so far as I can, give cases representing the diseases of each system of the body, for reference, and because it will make the subject more easily understood by the lay reader.

Paralysis Resulting from Disease of the Brain.

No attempts will be made in the following reports to localize definitely the part of the brain affected.

I have treated with hypnotism eight cases of hemiplegia (paralysis of one side of the body), resulting from cerebral hemorrhage. All except one of them were treated by hypnotism only after the paralysis had existed for a period varying from three months to eight or ten years. Three of my cases suffered from aphasia (inability to speak). Let me report one in detail.

Mr. F., fifty-nine years of age, was seen by me in March, 1893. The whole of the left side of the body was paralyzed. He had undergone what is termed a shock of apoplexy, the preceding December. Contracture of the left leg and left arm was pronounced. His face presented the usual drawn appearance. He was given a watch and I asked him what it was.

He called it a broomstick. I made a sign as though sweeping the floor with it. He immediately shook his head and said "No." Then the names of a number of articles were written on a card, "knife," "watch," "hat," "plate," etc. He selected the word "watch," pointed to it on the card, and then pointed to the watch in my hand. As each of the articles mentioned on the card were handed to him, he persisted in calling them by other names, and pointed to their correct names upon the card. He was hypnotized easily, and while in this state I told him that he would call things by their correct names, and that he could pronounce his words clearly. On being aroused he did very much better, but did not call everything correctly. He was hypnotized eight times. The aphasia practically disappeared, although his speech was scanning when he talked. He spoke after the manner of a school-boy in his early attempts to read poetry.

Aphasia very frequently passes off in a very short time after an injury to the brain, either from disease, or as the result of traumatism, but as the patient was much relieved after the first hypnotic treatment it seems that he was much benefited by hypnotism.

The post-hemiplegic contractures, both in this case and in a number of others, gradually improved while they were being treated by hyp-

notism. In fairness let me say that I have seen equally good results from Swedish gymnastics and massage.

The power of concentration and memory, which is usually impaired by hemiplegia of cerebral origin, were all benefited under hypnotic suggestion. In these cases improvement was so rapid that it would be unreasonable to attribute it to any other agency. In those which gradually obtain a partial use of their limbs, hypnotism seemed to hasten and amplify the result.

A patient suffering from a tumor upon the brain consulted me in the summer of 1893. He was forty-five years of age, and a sailor by profession. Owing to the location of the tumor there were clonic convulsions of the right forefinger and the right hand and arm, there was diffuse severe pain over the left side of his head. He was suffering from what is termed "hemianopsia." The temporal half of vision in each eye was totally destroyed. He was ill-tempered and exceedingly irritable. Suffered greatly from insomnia, sleeping only two or three hours in the twenty-four. Naturally superstitious, that condition was intensified by the disease. He believed that it was sent upon him as a punishment for his many misdeeds. As they were mainly deeds of dissipation, probably this was indirectly true. The man was treated

with the usual remedies, iodide of potash, and mercury, but he did not improve.

The process was specific, and gradually developed. Comatose attacks, together with general convulsions, came on. The pain grew steadily worse between the comatose attacks. After all other remedies had failed, hypnotism was tried as a last resort. The effect was startling in the extreme. At the first sitting he passed into the state of deep hypnosis in thirty seconds. He slept quietly for six hours after he was hypnotized, the hypnotic condition passing into natural sleep. The man lived for three months, and the last half of the period was insane because of the increase in the size of the brain-tumor. Up to the time that he lost his mind completely, he was kept free from pain by hypnotism, it being used three or four times a day.

A case of so-called irritable or traumatic spine, will next be mentioned. This man was injured in the celebrated Revere Railway accident. I do not know to what extent. His nervous equilibrium was badly disturbed. He suffered from insomnia. His spine was very tender to the touch. He walked with difficulty, his gait being somewhat ataxic. He complained of various morbid sensations throughout the body. His hands were icy cold even on the hottest day. There were zones both on

the body and extremities which were insensible to pain, temperature and touch.

The deep tendon and superficial reflexes were all exaggerated. The power of prolonged concentration was lost. Business cares caused him so much headache and mental confusion that he was obliged to abandon his work. I was consulted and my opinion asked as to the advisability of his having massage, which had already been tried upon him by another operator.

Having read of the success of hypnotism in such cases, I suggested to him that he let me try it. He was hypnotized in ten minutes. Suggestions were made to him while in that condition that his spine would no longer be sore. He was told that he could walk well. At the same time I told him that I would give him a piece of metal that was magnetized, and that every time he felt the symptom of disease during the day, he would receive a strong electric shock from the metal.

I took an aluminium pocket-piece from my pocket, which was sent to me as an advertisement for some firm, and punching some holes through it with my knife, bound it on the side of his shirt next his skin. I suggested that when he was awakened from the hypnotic state, he would go immediately downstairs and get me a glass of water, and would not use his

crutches. He had not taken a step without them for five years. I then commanded him to wake up. He did so. Began to move around restlessly, complained of the heat and said, "Would you like a glass of water?" Receiving an affirmative answer he arose, went downstairs without the crutches, to the amazement of his family, walking perfectly well. He brought the water up, complained of headache and drowsiness, and I again hypnotized him, and told him that these symptoms would pass off and that he would feel jolly. Again he was awakened and his whole manner changed. He was lively and walked around the room with ease. He slept five hours that night, and in one week resumed his business and has been perfectly well ever since.

Had not similar cases, perhaps even more difficult ones, been reported by other hypnotists, I should hardly expect credence for this one. Call it imagination if you will. Say that faith did the work, I care not to what it is due. A man who had been a burden to himself and family since the accident was restored to the condition of health. Let me say that electricity, massage, and the Weir-Mitchell rest cure, and other means, including Christian Science, had all been tried in vain.

A number of cases of so-called nervous cough, have yielded, under my observation, to hypno-

tism. Many forms of functional dyspepsia have also been cured by me in this way. The pain in chronic articular rheumatism has in some cases under my care been benefited by hypnotism. In other cases this agent has failed. In some of these massage and electricity afterwards succeeded.

Dysmenorrhœa (painful menstruation) will, when of nervous origin, yield more readily to this than to any other mode of treatment known to me. The lightning pain of locomotor ataxia, says Dr. Bernheim, will often yield readily to it.

A case under my care suffered excruciatingly. In this case all of the typical symptoms were present, namely anæsthesia, abolition of tendon reflexes, the Argyle Robertson pupil, and rectal and vesical incontinence. The anthropathies frequently seen in this terrible disease also added their misery to the patient's burdens. Hypnotism relieved the pains at the second trial. The other symptoms were not improved. Hypnotism has failed in my hands in two cases of amyotrophic lateral sclerosis. I have tried it in eight cases of myelitis. It did no good. Neither did it benefit two cases of anterior poliomyelitis under my care. One patient, suffering with progressive muscular atrophy, whom I had the opportunity of observing, was hypnotized by a professional friend. I subsequently

hypnotized him, neither of us doing him any good.

Severe vomiting accompanying pregnancy has been relieved in three cases by me, and tried with failure in one case in which drugs subsequently succeeded. Another case of the same trouble in which vomiting was excessive, no food being retained for several days, was cured at the first sitting by a friend who practised upon the patient so-called Christian Science. The result being due no doubt to suggestion as in my cases.

One of the most effectual evidences of the power of hypnotism ever noted by me occurred in my practice some years since. A man who suffered with severe trigeminal neuralgia, had tried many systems of cure. A physician recommended him to try massage, and suggested that he call on me to administer it. I did so and gave him about thirty treatments. The massage did him no good. I suggested to his physician that the well-known operation of resection of the trigeminal nerve should be performed for his relief. This was done. As often happens the nerve grew together again in a few months, and the man's sufferings were terrible in the extreme. I stayed with him all one night, and when the pain would set in, so great was his agony that he got up out of bed and seized a chair firmly by the back, and by press-

ure of his fingers upon the edge, cut them to the bone. I dressed his fingers and held him down afterwards by main force during the paroxysms.

The man was a chronic morphine-eater. At the request of his physician I gave him six hypodermics of morphine during the night, each dose consisting of a half-grain. It made him delirious but did not relieve him. It did not occur to me to hypnotize him. He read of a professional hypnotist in this city who was not a physician. He consulted him and was hypnotized at the first sitting. The night following he had no pain. It returned after the following night, and I was summoned, and at his request hypnotized him. He slept peacefully for seven hours. The neuralgia recurred in ten days (he had been playing a wind instrument, as he was a musician by profession). Again he was hypnotized and the affection has not up to the present time, a period of four years, recurred.

I have succeeded by hypnotism since, in relieving many cases of neuralgia, but none of them were so severe as the case reported. Similar observations are recorded by all of the prominent European writers upon hypnotism, and it is indeed singularly sad that such records are not heeded by every practitioner of medicine throughout this land. Hypnotism can be

learned by all of them in a comparatively short space of time. It is infinitely more safe than the constantly increasing doses of morphine which are so frequently used for this sad affliction.

The severe pain in one case of gout was likewise relieved by hypnotism, so I am told by a reliable acquaintance.

CHAPTER XIII.

NEURASTHENIA.

WHAT a world of symptoms this simple word covers! Many and varied are its clinical manifestations. Alas, how common it is among the American people with their overworked nervous systems!

The term also covers a vast deal of medical ignorance. The disease has been the means of enriching the vendors of patent medicines, the keepers of resorts at mineral springs, and has afforded a good income for a large majority of the practising physicians of the world. Its refractory qualities have baffled the skill of many a practitioner. It is the mother of more medical fads than is any other disease. Volumes have been written upon it, sanitariums without number have been constructed for its cure. What is it? Nervous exhaustion, brain fag. Insomnia is its handmaiden, digestive disturbance its constant companion. Headache, backache, constipation, diarrhœa, uterine affections, aye, every part of the body finds a

lodging-place for some of its symptoms. It affects the mind as well as the body. It produces irritability of temper, inattention and morbid fancies of all kinds. It impoverishes the blood, it affects the eyes, and perverts all the other senses.

Each individual case does not usually present all of the array of symptoms mentioned, but they are blended together in every puzzling combination conceivable. It both obscures and simulates most, if not all, of the other diseases of the body. It is blamed for the existence of many of them. When long continued it perverts the whole temperament of the individual. It causes one to be preoccupied in one's self. Hence selfishness is a very common symptom. So absorbed are these patients in their own misery that they forget their duties to their friends and to society at large.

I shall now endeavor to report a few cases, and hope by so doing to make some of its clinical types clear.

The first patient was a lady, thirty-six years of age. She was married and the mother of one child. She was above medium height, fairly well nourished, had a rather dark complexion and brown hair and eyes.

She had been abroad a great deal, and had consulted for her various ailments a number of eminent practitioners and specialists. She

talked volubly, was fairly well educated and appeared well. I was called to her in the evening and found her so much depressed that I feared melancholia. She complained of tinnitus aurium (ringing in the ears). She had pain in the upper part of the back of the neck and the head (cervico-occipital neuralgia). She complained of pain in the lumbo-sacral region (the lower part of the back). She did not sleep well, for which she had taken at different times the following list of drugs, all of which she said "disagreed" with her, which is not surprising.

First, bromide of soda and chloral, morphine in combination with atropine, phenacetine with and without bromides, antipyrine, chlorodyne, whisky, brandy, cannabis Indica, sulphonal, several of the valerianates, a number of the homeopathic potences of caffia. She had tried massage and warm baths, all for insomnia, in a period of four years.

For her other symptoms she had attended most of the mineral springs of Europe. Was treated with the water-cure by a pupil of Dr. Winternitz in Vienna. She had been douched with cold water and with warm water. She had tried the Scotch douche. She had tried shower-baths. She had tried electricity with and without baths. She had had glasses prescribed by no less than six eminent oculists. In justice to these gentlemen let me say, however, that

their prescriptions were all practically alike. She had consulted a number of specialists, and was treated by them for uterine and ovarian difficulties. She had tried lavage (washing out of the stomach). She had taken no less than eighteen of the salts of iron, in combination with phosphorus, quinine, cinchonidine, and cinchona. The salts of zinc had also tried their hand upon her. Specialists of the throat and nose had done their best for her. As she had had an occasional attack of hives (urticaria) the dermatologists had also done what they could for her. Her friends prayed for her, and she prayed for herself. All in vain. The Christian Scientists argued with her that her disease did not exist, which was partly true. Magnetic physicians laid their hands upon her, but, alas ! with no success.

In fact, strange as it may seem, this lady had tried all of the methods related, and while benefited for a time by each, was cured by none.

Now, readers, must I relate it ?

She was hypnotized once, twice, thrice, and the number steadily increased until the limit of seventy-five was reached. She got better after each one of them, but, shame to all of the healing methods, she did not get well. I suggested everything that my brain could invent. I had her take every sort of mental exercise, of diversion and amusement she had long since

had enough. She studied painting and music to no avail. This sweet, complacent, refined, professional, expert invalid set at naught regular medicine, religion, occultism, in fact, all of the methods for the cure of the ills of man, and the last I heard of her she was in California, trying the grape cure, but was receiving no benefit.

This description is not overdrawn, and I have no doubt it is almost the daily experience of every physician who is thrown in contact with so-called nervous invalids. This form of disease is chiefly found among the wealthy. Its causes are, first, the want of a purpose in life, and a lack of mental capacity, inordinate vanity, and, above all, profound narrow selfishness. From studying women of all classes in very large numbers, I am led to believe that a majority, perhaps a large majority, of them, suffer more or less every day. Some of them, I am thankful to say many, by the exercise of their wills, and by devotion to their homes and to society are able in a measure to forget their sufferings. Many times what they do not forget they nobly bear.

The second of these cases will illustrate another form of neurasthenia, and it seems to me ridiculous to call the two widely-different conditions by the same name.

Case 2. A lawyer, fifty-five years of age.

Family history good. He did not use alcohol and had no other vice. He was a railroad attorney, and transacted business for a large number of wealthy corporations. He was kindly and gentle. He possessed a splendid physique. For eight or ten years he worked from eight o'clock in the morning to twelve at night. The year before I was consulted his family complained that he was growing irritable. This increased, and he redoubled his work. He became so excitable that he was insolent and unbearable to his clerks and business associates. Things that would not have ordinarily annoyed him produced in him a violent fit of anger. His food began to distress him, and he greatly restricted his diet. Finally, owing to severe headaches, he consulted a celebrated New York physician. His medical adviser gave him medicine, and told him that unless he desisted from his work he would break down entirely. He took the medicine but did not desist from work. Insomnia came on, and the depression and nervous irritability steadily increased. Finally he made one or two blunders in business, from lack of concentration, and then went abroad for his health. Although he could reason clearly he was so nervous and irritable that his family found it necessary to confide him to the care of nurses. He committed assaults on several of them at different times. Then afterwards,

weeping like a child, told them that it was his nervous state, and that he had no intention of acting in that way. Consulting a physician in this city he was sent to me for massage, rest, and forced feeding. Rooms were secured in a private house, and the treatment begun. The following incident illustrates the very sad condition of his nerves.

His attendant was called away one evening and I happened in in his absence. There in his room, sitting in a chair, I found this wreck of a man, crying bitterly, and looking between whiles at two objects which he held in his hands. Strange as it may seem, these were simply two night-shirts, and this once intellectual, strong man, was actually weeping because he could not decide which of the night-shirts to put on. I remonstrated with him gently, and he immediately became enraged and ran around the room like a madman. I took him kindly but firmly by the shoulders and sat him down on a chair and commanded him to put on a night-shirt, and handed him one. He reluctantly obeyed. I then led him to the bed as I would a spoiled child. Then it occurred to me to hypnotize him. I took a bright coin from my pocket and went through the usual process. In five minutes he was hypnotized. I induced the so-called somnambulic state, and made suggestions pertinent to his

condition, telling him that he would sleep, that his massage would rest him, and that his irritability of temper would leave him. The next day found him much better. He was hypnotized twice a day for fourteen days. Hypnotism relieved the irritability and in a measure restored the power of consecutive thought. Massage, rest, and a large amount of food again renewed his physical vigor. After ten weeks of this treatment he was sent to the mountains for a month, then to the seaside for a month, and then gradually he returned to his business cares.

The description given by Stevenson of Dr. Jekyl and Mr. Hyde does not begin to compare in force with the difference between this patient ill and the same patient well.

Intellectual, noble, hospitable, kindly, and calm of demeanor when well, this same man, when suffering from nervous exhaustion, was ill-tempered, perverse, brutal, coarse, and selfish to such a degree that it would be impossible for any but a medical man who is conversant with this condition, to believe.

I have cited two extreme cases. There are all gradations of them, and hypnotism, or suggestion without hypnotism, will benefit most of the symptoms ; and if rest, hygiene, suitable occupation, and diet are used at the same time, if there is any power of recuperation left in

such a patient they may again restore him to health. Of course, in many cases there are underlying organic diseases which may require medical or surgical treatment for their relief; but from a large experience I am convinced that minor diseases are regarded erroneously as the causes of this interestingly complex state, when they only play a subordinate part in the condition, and sometimes are not responsible for it at all.

It is curious, however, that neurasthenia may sometimes be relieved or cured by a slight surgical operation, or by some insignificant remedial agency. "Suggestion did it," most physicians will say; then, bless suggestion, say I, or anything else that will relieve this class of patients.

There are many symptoms of brain-exhaustion. Many more of the absence of cerebral balance.

I do not design this for a text-book upon medicine, but merely to show the application of hypnotism to disease. Many forms of depression are curable by suggestion. I do not know that they can be classified and differentiated from those forms of depression which cannot be cured by hypnotism. I think more depends upon the temperament of the person who is being treated. There is an innate susceptibility to hypnosis. Some people are much more easily hypnotized,

some can be benefited, and some cannot. Why this is true I cannot say, and in a considerable search of the literature I have failed to find a rational explanation of it.

To say that one man is susceptible and one man is not so, is simply to state a fact. The constitution of the human mind, its infinitely variable qualities, can never be understood until its essential essence is discovered. We know that consciousness cannot manifest itself without a nervous system. We know also that the higher the type of the cerebral developments, the greater the intellectual capacity. Within certain limits it has been fairly well established that certain parts of the brain preside over, or, better, are associated with, certain sensory and motor manifestations.

Microscopical anatomy teaches that the morphological elements of the gray matter of the brain are carried in the central part of the nerves to all parts of the body. There are distributed throughout the body many collections of this gray matter. Martin, in his book entitled, "The Human Body," compares these small masses (ganglia) to telegraphic stations which carry and perhaps elaborate the information which is received at the periphery through the senses to the telegraphic central station—the brain.

We know that the substances of which the

nervous system is composed are very complex. We do not know the chemical changes which take place in it as the result of its activity. All that we know about the so-called pathological anatomy of the nervous system has been discovered by studying specimens of nerves and brain taken from the dead body, or by studying those which have been removed from the living body during an operation, the specimens themselves in either case being dead.

The electrical experiments conducted by physiologists upon the nerves and muscles taken from frogs and other animals are familiar to all. They give us no information as to what the essence of the mind is. All we really know of the mind is by its manifestations, and these pass through the nervous system and the sensory and motor apparatus to the external world. Neither physiology, chemistry nor pathology has as yet given us any information as to what the ulterior causes of thought are due.

Hence it follows, in the light of our present knowledge, that we cannot formulate any theory of mental and nervous exhaustion which will not be largely the result of speculation.

Having hypnotized persons afflicted with all grades of neurasthenia, and having succeeded in some cases and failed in others in giving relief, the only thing that is left for me to do is simply to indicate the patients who

were helped, and indicate and describe those who were not.

In what I am about to say I do not wish to be understood, especially by physicians, as making dogmatic assertions, but shall give in the clearest possible manner my views, which have been formed as a result of my personal experience, plus what I have read of the works of others. I do not quote extensively here, as space will not permit.

The cases of neurasthenia in which hypnotism has, in my hands, given the best results, were those in which nervous exhaustion had been induced as a result of over-study or of some other severe strain of the nervous system. Neurasthenia following the abuse of tobacco and alcohol will yield quickly. Hypnotism is more successful in that class of neurasthenics, who, after their cure has been effected, have a purpose in life. In chronic neurasthenia its success will be in the direct ratio to the ability of the hypnotist to cure by suggestion, not only the habits of living, but the modes of thought of the subject. It is sometimes exceedingly difficult, nay, impossible, to do this, in persons who are indolent and who possess no mental resources which enable them to provide suitable occupation and amusement for themselves.

Hypnotism may develop, but it cannot make

an intellect which never existed. In applying it to neurasthenia I study the voice of the patient carefully. I believe it to be the best index which we possess, of the moral character and mental condition, if it is only understood correctly. Narrow, sordid men and women have voices which, while widely different in musical pitch, have certain qualities in common. Depressed, gloomy people always show it by the voice. One can tell an illiterate man from the tones of his voice, even if he is speaking a language which is unknown. This subject has never received sufficient study. Having paid particular attention to it, I have watched carefully and without prejudice for the purpose of contradicting or verifying my first impression, particularly of so-called neurasthenics.* While the disease is not confined to any one class of people, its symptoms are so different in persons of different temperaments as to be scarcely recognizable. Any system of therapeutics which is to relieve or wholly cure this condition must take into account, first, the temperament, the mental habits, and kind of education, all bodily states, and last, but not least, the external environments of the patient. Every faculty must be acted upon. Self-control is the pre-requisite. Self-confidence the second.

*The Voice as an Index to the Soul. J. R. Cocke, M. D. *Arena*, Jan., 1894.

The greatest possible amount of diversion compatible with the intellectual capacity of the patient should be prescribed. The past history too, should be learned and taken into account. Not only the bodily history, but all defeated ambitions, all unrealized hopes, aye, every disappointment, every joy should be known and understood, and, strange as it may seem, the affections should be clearly comprehended, for there are many who go through life and who never feel or experience deep, true love. These, indeed, are difficult cases to cure. For, caring for nothing else in the world, they are selfishly preoccupied and study assiduously each ailment, real or imaginary.

When men or women are blasé they are equally difficult to treat successfully.

I know a patient who is wealthy, who has everything in the world to live for, social position, kind friends—everything. He has the opportunity to do good and to be of use in every way. He gives his money freely, but he cannot give his better self, because it does not exist. It is impossible to entertain him with anything. Books for him have no charm, the theatre no fascination. Music and poetry do not reach him. The ambition to be successful in business is not his, and all in the world that he cares for, all that he cuddles and tends, are his own feelings and complaints. He cannot

be reached even through the passions. Food and drink have for him no temptations. He lives in the world, bored by the things which should interest him and make his life worth living. He has tasted of everything. He has drank of all the good things of life. He has travelled, and yet the world has made practically no impression upon him. Loving friends have nurtured and cared for him, and he gives back only cold expressions of love for their pains. He does what he conceives to be his duty, and, in the ordinary sense of the word, he does it well. He provides for the poor, he attends church, he is connected with a great many benevolent enterprises, but love, the one thing that makes life worth living, he has never felt. Hypnotism naturally could not relieve the imaginary or real ailments with which such a man must necessarily be afflicted.

This is not an exaggeration, and, while his case is somewhat extreme, there are, I am sorry to say, thousands of men and women like him in the world. Perhaps the condition is not as profound in them, but it exists in such a degree as to spoil their own lives and the lives of those around them. To what extent this class of individuals could acquire that which they lack, if they were trained in early childhood, I do not know. But the experiment of training children who show these tenden-

cies should be tried, by reaching what is left of their moral natures through every means possible, and hypnotism may prove one of the most valuable of them.

Hysteria.

The complexus of morbid phenomena designated by this misnomer, would require volumes to adequately describe. The state exists in the intellectual and in the ignorant alike. Its victims have played a large part in the world's history. It occurs in all gradations and varieties. It may be, and frequently is, hereditary. Sometimes in different generations it alternates with epilepsy, insanity, alcohol, and consumption.

The only thing in common between the widely different conditions termed hysteria, is the fact that in these cases, after death, we have no means of discovering definite organic disease of the nervous system.

For the sake of the lay reader only a brief description of hysteria will be given, and for further information, I shall refer those who wish it to medical works upon the diseases of the nervous system, particularly those of Charcot and his pupils.

Most of the works in the English language upon diseases of the nervous system also describe it, and there are some excellent monographs upon it as well.

Clinical History of Hysteria.

Minor degrees of this condition are evinced by an instability of the emotional system. It occurs more frequently in women than in men.

The attack of laughing and crying which may come upon them as the result of mental excitement, grief, etc., is well known to all. It is probably not so well understood by the public that, in the graver forms of this disease, persons may be temporarily paralyzed in one limb, or in one side of the body, in the upper or lower extremities, or in all at the same time. There are attacks of blindness, deafness, perversion of the senses of taste and smell, or, again, all of these senses may be wonderfully acute. Sometimes, but not always, there exists intense vanity, a great desire for notoriety, and this desire may lead the patient to simulate many organic diseases, or to pretend in various ways that he is afflicted with conditions which are only imaginary. Hence, to say that a patient is hysterical may imply perhaps more than would be desired.

The profoundly hysterical persons sometimes have what Charcot terms hystero-epileptic fits. These persons also take very strong likes and dislikes without reason. Again, they are very intuitive. There is not an organ or a system of the body exempt from these symptoms.

There may be areas of numbness (anæsthesia), or hyperæsthesia (great sensitiveness) may be present. There may be zones of the body so sensitive that they cannot bear even the weight of the slightest clothing. The skin may become pale or the reverse. Bloody sweats have been described ; in fact, it would be impossible to imagine a symptom which does not exist in some of these cases. Hence it follows that a layman should never make a diagnosis of hysteria in himself or in any one else, for, indeed, it will puzzle at times the skill of the most expert neurologists. The point which should be understood clearly by all is this, that the disease is susceptible of relief through widely different agencies.

Cases of hysterical paralysis may yield to the application of magnets, metals, prayer, drugs, electricity, aye, anything in which the patient can be made to believe. Again, these same patients may prove refractory for years, and be cured by some trifling circumstance, or never cured.

Many of the miracles and wonders worked by charlatans are upon this class of patients. I have no objection to the patient being cured, no matter how it is done, if the cure is not more injurious than the disease. The thing which is objectionable is that this is sometimes not the case.

Mrs. A. is cured of an hysterical affection by J.'s magnetized medicine, or other means. Mrs. B. may be afflicted with some disease which, if not properly treated, will end fatally.

Now Mrs. B., led by the marvellous experience of Mrs. A., may lose precious time while experimenting with the remedy which was given Mrs. A. by J. This has more than once occurred in my experience.

Notably, a lady suffering with uterine cancer, but ignorant of the nature of the disease, instead of consulting a physician, was led to try a patent medicine because it had cured one of her friends of hysterical vomiting. Now cancer in this region, if it is recognized early enough, may be so thoroughly removed that a useful life may be prolonged for a number of years.

In the case related the lady continued to take the medicine for four months, consuming in that time about thirty-six bottles of it. When a correct diagnosis was made, alas, the rapidly growing cancer had invaded the tissues to such an extent that medicine and surgery could do little or nothing for her. It is this fear which should send every man and woman to a reliable physician, at least for a diagnosis. The question of treatment can be then decided. I do not claim that all of the cures which have been made by irregular practitioners were upon those who were simply hysterical. I do not believe that

is the case. I am too well aware of the fallibility of even the best physician, and while confessing that our methods are as yet imperfect, I still maintain that it is better to consult a man with experience and training, than one who is without these. I think that it is better that a man should see his physician a thousand times when it is not necessary, than to fail to see him once when he is in need of his assistance.

Persons afflicted with any form of hysteria are entitled to the utmost consideration. In these cases, particularly, the physician should use the greatest amount of care, for he may overlook some existing organic disease.

Some types of hysteria are made better and some worse by hypnotism. All are benefited if some form of suggestion, with or without hypnosis, is skilfully used.

Mental therapeutics promises more in this field than in any other. Whenever the imagination is strong, when the patient shows fanatical tendencies; whenever the disposition is essentially contradictory, as is often the case; whenever the patient pretends a great many conditions that do not exist, and when, accompanying all these, the intellect is enfeebled, hypnotism should be used with the greatest care, if at all, and only when other methods fail.

On the contrary, when there is anæsthesia (numbness), or when one faculty is alone affected by the hysterical symptoms, and when the mental equipoise of the patient is fairly good, hypnotism promises a great deal, as the following case will show.

A girl, sixteen years of age, attended a clinic, at which I was a post-graduate student. Her arm was paralyzed and had been so for three years. The sense of touch, temperature, and pain were gone. The nutrition, however, was good, and the electrical reactions normal. The arm hung limp by her side. The physician in charge of the clinic hypnotized her. He then commanded her to raise her paralyzed arm. She did so, to the astonishment of her mother, who was present, and to the amazement of the students as well. The physician told her that she would be able to use her arm for one week, and that at the end of that time she must return to the clinic. At the appointed time she came back, and the arm became paralyzed only as she entered the room, so she said. Again she was hypnotized, and was told that she would use her arm for a period of two weeks, and the interval of each hypnosis was lengthened.

This patient presented not the highly-wrought emotional disposition, but simply an hysterical paralysis. This symptom, like all other symptoms of hysteria, cannot be accounted for upon

any hypotheses at present current. It is not purely imaginary in the ordinary sense of the word, but it certainly is connected with the mind in some way.

Medical literature is filled with such cases, and so-called miraculous cures of similar conditions abound on every hand. Here, too, the temperament is equally important and the suggestion must be tactfully suited to each patient.

Apropos of the subject under discussion, I quote the following from a clinical lecture delivered by Dr. M. Allen Starr, at the College of Physicians and Surgeons in New York, published in the "International Clinics," in January, 1892.

The patient was a girl, nineteen years of age, who had suffered from what Dr. Starr termed a subconscious pain in the right arm and shoulder. It had existed five years. Dr. Starr says he excluded organic disease and hypnotized her by means of a bright coin, and while she was hypnotized, suggested to her that her pain was growing less, and lengthened the period between each hypnotic treatment. The patient was entirely relieved by hypnotism.

The following are Dr. Starr's words, *verbatim*, from the lecture.

"You see, then, gentlemen, that in a condition of this kind it is possible to make suggestions that reach our subconscious states and

last over into the conscious state, and such suggestion is not harmful in any way, and often has the effect of relieving conditions that have baffled medicine and all other forms of treatment. This condition of delusive pain sometimes may not be as firmly fixed as in this person. It may be subconscious, but not so constantly and acutely there as to affect the individual very much. Under these circumstances it may be possible, without putting the person into the hypnotic condition, to suggest relief, and through your personal influence gain a hold upon the individual to persuade him to get well."

It will be noted that Dr. Starr calls this person's suffering "subconscious." It seems to me that the terms "sub" and "conscious" are contradictory, "sub" denoting "under" or "below," and "consciousness," our recognition of our state and its surroundings. One cannot feel and know that of which they are not conscious. They may not place it in its proper position in consciousness. The theory is that such pain exists primarily, not in the arm, but in that portion of the brain which presides over sensation in the arm. This is, in fact, the theory which is generally accepted as explaining the varied phenomena of hysteria. If a part of the body is numb, the trouble is not at all in that part of the body, but in the brain, and

whatever sensory symptoms may exist they are morbid states, not necessarily of the part to which the brain is referred, but of the portion of the brain presiding over the locality. This theory looks plausible, but lacks absolute proof.

The next statement I wish particularly to be noted.

In an attack of major hysteria there are sensory and motor disturbances, general or local. Now, in a person who is hypnotized, these same phenomena can be produced exactly, and are apparently from the same source, the mind. They vanish with the hypnotic state, but may be left by suggestion in the mind of the patient after the hypnotic state has gone. Can we then, by suggestion, write almost anything we choose upon the mind as upon a tablet with an indelible ink? Does this state, termed hypnosis, so change the condition of the psychic life as to make it susceptible to such profound alteration? It certainly seems in many cases to be so.

In hysteria, suggestion will frequently, as has been said, cause either a disappearance of, or a change in, the nature of the disturbances. This is the principle which is important for the reader to grasp. Just as disease of the body may affect the mind, so disease of the mind may produce, in the conscious life of the individual, sufferings which are just as tangible and real

to him as the evidences of his senses, and yet have no basis or fact in discoverable organic disease of the body. The man's consciousness may refuse to admit that he can move his legs when the nervo-muscular and osseous systems are in perfect order. Such a state is at first difficult to conceive. Tell the athlete as he vaults over a bar, or runs upon a race-track, that he cannot walk and he will laugh at you, and yet I have seen such an athlete who was paralyzed for one year, restored to health in a few minutes, by simple suggestion and ridicule. A friend laughed at him, and told him that he could walk if he only would. He tried it and he did.

We do not know enough about the various states of consciousness to explain why this is true, but if those who do not know the fact wish to learn it, they will not have to seek the evidence at a great distance. I do not attempt to formulate any theory, but shall cite the following very simple propositions in proof of the fact, and trust that they will at the same time make its conception easier.

First, then, the mind has subjectively the power of repeating in a real and vivid manner all of the phenomena of objective life. One will dream of eating and will relish food, or it will be loathsome to him. In dreams we hold imaginary conversations. In a dream which I

remember well I had a discussion with a phantom being. His replies to my statements were sarcastic and intelligent. The style of language used, as I remember it was not my own. Now, if while sleeping one's mind can create from the store-house of associations a being who is friendly or antagonistic, who will share in his pleasures, or participate in or add to his miseries, is it at all strange that disease, aye, real, keen, local or general pain can exist in the consciousness and have no local gross anatomical basis? Some substance in the blood acting upon the portion of the brain which perceives sound, may cause subjective noises in the head. The same or another substance may act upon the centre of sight, and a variety of strange things may be seen. Every sense, indeed, every thought, is undoubtedly influenced by the nature and chemical and mechanical composition of the substance brought to its nervous mechanism by the blood, or such a substance may be generated within its nervous mechanism, as a result of its activity, and not be properly eliminated.

It is easily proven that poisonous substances produce new, and alter the usual, forms of thought. There are a number of drugs which induce delirium. This delirium differs with the different drugs used. The same is true of

the state termed "narcotism." Narcotism induced by opium and that induced by chloral hydrate, while resembling each other in certain particulars, vary much in others.

In hysteria we have a certain condition of the brain and nerve cells which may have resulted from some form of the many circumstances affecting embryonic life. This condition may be a chemical one, or a morphological one. Given a certain impetus by environment, and the result of the activity to such a nervous mechanism is inharmonious, in just so far as its constitution differs from the ordinary types. Dr. Wesley Mills, in his "Animal Physiology," emphasizes the fact that even low forms of life are influenced to a very great degree by the law of habit, and also he shows that rhythm is another characteristic of animal life. Again, the degenerate nervous system which has formed certain habits will continue to do these things rhythmically even after the cause has been removed, until something occurs to interrupt the regular phenomena which it evokes.

Hysteria occurs in crises of paroxysms. Each successive paroxysm leaves its impress and predisposes the nervous system to another paroxysm, or at least lowers its resistance so that it will be easily disturbed. Hypnotism, by impressing profoundly the psychic life, may interrupt these habits, or may alter, very

profoundly, the chemistry, and possibly to a limited extent the morphology (form), of all or a part of the central nervous system. Use or disuse of any faculty, as is well known, improves or injures it.

It is equally well known that under strong stimulation the mind can perform feats which without it would be impossible. Hypnotism certainly impresses the whole psychic life to a very great extent, hence its work may be good or evil, according to the way in which it is used. The more susceptible the patient, the more injurious or beneficial will be the hypnotism, according to the method of application, and other circumstances. It is not necessary, then, to explain the action of hypnotism by any other than known phenomena. Whether there be vital fluid and animal magnetism yet remains to be determined, but we do know, and in a measure can understand and study, the facts which are presented by the action of the mind, whatever its ultimate essence may be. It is by studying these facts and by classifying them that we may form some conception of the laws of psychic life, health and development. Most men and women possess in widely different degrees all of the same mental faculties. Some of them may be rudimentary in certain individuals.

When a normal man is in his ordinary waking state there is a happy balance between all of the faculties. If he is frightened, this happy balance is disturbed. If he is intoxicated, it is likewise disturbed. Everything which acts violently upon the consciousness will cause one faculty of the mind to act in excess of the others. The same thing occurs in grave hysteria. The same thing occurs in hypnosis. The proposition is, then, that the balance of every mind can be destroyed by means of one kind or another, and when it is, phenomena occur indicative of the derangement.

I believe every one could be made to show certain phenomena indicative of hysteria. Consequently it appears that hysteria in some of its forms may be developed in every one by a disturbing influence which renders the co-ordinate action of the mind in all of its parts inharmonious. Let me illustrate.

Severe fright can make a man insensible to pain. A man, when frightened, may sustain an injury, and be at the time unconscious of it. A man of my acquaintance, who was in a railway accident, had his left leg badly crushed. After twenty minutes he succeeded in extricating himself from the wreck, and first perceived his injury when he attempted to use the crushed limb. In other words, fright rendered him, by disturbing the balance of his conscious-

ness, insensible at the time to pain. Great joy may produce the same result. Great mental sorrows will sometimes have the same effect. Many states of the mind can be carried to such a degree as to render all other sensations and conditions temporarily impossible.

It seems to me that in this statement the phenomena common to hypnotism find an explanation ; but my critics would say, "Not an absolute explanation."

Such an absolute explanation cannot be given to any of the phenomena of life. We do not know why oxygen causes a combustion of the tissues. We know that it has a certain chemical affinity for them, and that is all we know about it. We have only the facts and cannot explain them by any methods of investigation which we now possess. Chemistry, histology, physiology, pathology and anatomy are only classifications of ultimate facts. Why belladonna induces delirium, and cold water does not, we do not know. Physiologists will say, "Ah, but it induces it by its action, which causes a state of hyperæmia (congestion) of the brain. It acts upon the centres controlling the blood vessels, and upon the centres controlling respiration." Why it does so, we do not know. Why one state will occupy the whole consciousness to the exclusion of all the rest, we do not know, but we know that it does. Why a certain method

of impressing the nervous system will subjugate for a time the higher centres of thought, we do not know, but we know that it will do so, and we have discovered some of the avenues over which it travels. Again, we do not know that the psychic life can reproduce within itself, to itself, all the experiences which it has had with the external world when the brain and nervous system are destroyed.

Dr. Ireland says that the nervous system, like the osseous system, has the outline of the form of man. He might have added that in the mind there is an outline, something even better than an outline, the whole form of a man's life from the cradle to the grave. The mental arm may move, the man's eyes may see, the man may feel, when the avenues of expression through the body and to the outside world are destroyed. Now, as the whole body is under the control of the nervous system, as each portion of the body has assigned to it a portion of the nervous system, this portion may act in harmony with the rest, may do the work of the rest, or may act independently.

Hence it seems to me that the relation between the inharmonious actions of the mind during the hypnotic state and some conditions, occurring as they do in widely different states, resembling the phenomena of the hypnotic state, is explained, at least is made easier of comprehension.

CHAPTER XIV.

TRANSFERENCE OF SENSATION BY MEANS OF A MAGNET.

In 1890 M. Luys made public in the June and August numbers of the "Fortnightly Review" experiments which created a profound sensation. He claimed that magnets could be made to carry the sensations of the sick to well persons who were previously hypnotized. After conveying the symptoms of the patients to the hypnotized subject he then freed him from the sensations by suggestion. M. Luys' so-called discoveries were by no means new. It was a favorite doctrine of the followers of Mesmer. The mesmerists frequently experienced the sensations of the one mesmerized. Hippocrates recognized the value of the magnet as a therapeutic agent. Medical literature has contained more or less reference to it ever since. It was filled with evidences of a belief in it during the mediæval ages.

In 1845 Reichenbach published accounts of the action of magnets upon disease. Dr. Luys

says that his method of therapeutics consists in the conveyance of the symptoms of the diseased subject to the hypnotized subject by means of a magnetized rod. The following are Dr. Luys' methods.

The patient places his hands upon those of the hypnotized subject. The assistant holds for a minute or two, near the arms of the two persons, an apparatus composed of three branching rods, then moves it about in various directions. The magnet is moved in the direction of the different limbs, and by these methods Dr. Luys claims that the two persons are magnetized. The movements are made with the north pole of the magnet only when they are opposite to the painful places upon the patient's body. The hypnotized person not only takes, for a time, the diseased state of the patient, but his personality is changed so that if the subject hypnotized is a female, and the sick person a bearded man, she will assume the masculine manner, and if her face is touched will act as though her beard had been pulled.

The subjects used are regular daily attendants at the laboratory. They are paid for their services. They have access to the clinical histories of the patients, and the probability is that they shrewdly guess the ailment of the patient, and in most cases assume or act the part for the purpose of deception. If the patient is suf-

fering from paralysis, the subject acts as though he or she were paralyzed. If, however, the patient is suffering with a pulmonary or cardiac affection, the transfer is supposed to take place in these organs. I do not know that there are any recorded observations in which cardiac irregularity (irregular beating of the heart) has been transferred from the patient to the hypnotized subject. This transfer of the symptoms does not always prove beneficial. Mr. Vincent says, "Thus, a patient suffering from 'paralysis agitans' may have his affection transferred to the subject, who will adopt the most violent palsy; but all this time the patient is suffering still."

It is more probable that the ludicrous performances of the hypnotized (?) subjects are either the result of wilful deception or of hypnotic suggestion. In those who are benefited by having their sensations transferred to the hypnotized subject, the benefit is probably due to either the impressions made upon them by the mimicry of the subjects or the result may be due to simple suggestion.

Dr. Luys has taught that the magnet may affect the emotions. He thinks that because a magnet will act upon a steel needle it will also act upon the faculties of man. He thinks that the north pole of the magnet acts in the opposite manner to the south pole.

As is well known the north pole attracts the needle while the south pole repels it.

Dr. Luys says, "If you present the north pole of the magnetic rod to a subject who is in a state of lethargy, you arouse in him movements of joy, and expansion of feeling, and if you connect him with the south pole, movements of repulsion appear."

Experiments have been made by a number of medical men to test these assertions. When Luys' subjects were aware which pole was being used they evinced the phenomena expected of them, but when the poles were wrongly labelled, or not labelled at all, some very ludicrous phenomena were observed that did not coincide with the results claimed by M. Luys. His magnet was usually labelled with a large letter N in blue ink written upon the north pole. It is claimed that hypnotized subjects will see a yellow flame issue from the north pole of the magnet, and a blue flame from the south pole. Reichenbach's subjects reversed the color of the lights seen at the two poles of the magnet.

Dr. Luys claims that he can impress the characteristic physiological effects of different drugs upon the systems of the hypnotized subjects. When these drugs are placed in sealed tubes and brought into contact with the subjects in the state of hypnosis, he can produce nausea with ipecac, intoxication with brandy,

sleep with morphine, etc. I have witnessed many similar experiments conducted by some of the pupils of Dr. Joseph Rhodes Buchanan in Boston. They were not sufficiently successful to be of scientific value.

Dr. Luys also claimed that he could transfer the sensations of the hypnotized subject to a glass of water, a stick, a doll, etc. After the sensation had been transferred the subject would writhe if the water were agitated, and would evince sensations if the stick or doll were touched.

Mr. Vincent says, "Recently I gave a demonstration of the fallacies of these experiments, and the following was the report. 'The subject was now introduced, and being put into the hypnotic state, the experiment was tried with complete success. Whenever the water was touched, and the subject was aware of the fact, he shuddered and writhed until the features became distorted as if with excessive pain. When, however, the water was touched, and the patient was kept in ignorance of the fact, there was no effect whatever upon him.'"

Other writers agree with Mr. Vincent in his view of these experiments. However, it is better not to be too rash in forming conclusions. Such a thing may be possible. Twenty subjects may simulate, willingly or not, while the twenty-first may be genuinely affected.

Dr. Frederic Peterson, of the College of Physicians and Surgeons, New York, and Mr. A. E. Kennelly, chief electrician, Edison Laboratory, Orange, N. J., reported some very conclusive experiments in the New York "Medical Journal" of December 31, 1892. They were tried at the Edison Laboratory, for at this place their facilities, through the kindness of Mr. Edison, were all that could be desired. Some idea of the strength of the magnets used may be gained from the fact that heavy bolts and chisels a number of feet away from the magnets were irresistibly drawn to them, and it required, so these gentleman state, a considerable muscular exertion to remove them. The experiments were conducted with the strictest scientific accuracy. All of their results were of a negative character. Their experiments were exceedingly interesting, and if the reader wishes to pursue the subject further he is referred to the journal before mentioned.

Phenomena similar to the ones described have been recorded in the literature of spiritualism in this country. Journals abound with similar descriptions. Clairvoyants claim that they can, while in the trance state, take the symptoms of the one they are examining.

For twelve years I have studied their claims carefully. I have, times without number, heard clairvoyants describe correctly the symp-

toms of persons who were sitting before them. Their descriptions of the real pathological conditions are often erroneous to absurdity. They will, however, locate correctly the seat of the pain.

The late Mr. Bishop, who was well known as a mind-reader, could give these descriptions with wonderful accuracy. The claim has been made that this was accomplished by muscle-reading. A clairvoyant holding the hand of the patient and beginning to describe the symptoms, the tension of the patient's muscles will indicate, it is said, whether the clairvoyant is describing correctly or not the existing symptoms.

There are clairvoyants, however, who read the symptoms of the patients without taking their hands or in any way coming in contact with them. This whole subject should be carefully investigated.

Most persons who have studied the phenomena either go determined to be, or not to be convinced, according to his or her preconceived opinion. This is of course unscientific, but, alas! such a spirit is often not confined to the ignorant or to the half-educated. This is one of the easiest phenomena to be investigated which has been alleged by spiritualism to be true.

Members of this faith also believe that if they are sensitives (mediums), they are affected with the ailments of those with whom they are

brought in contact. For a number of years spiritualists have claimed that a person may impart his or her physical condition to an article which has been worn or carried about the person, and the sensitive can take this article, describe the physical and mental characteristics of the person, and also his ailments, if they exist. I have given some study to this claim, but shall not record my results, as they are not as yet in such shape as to be published.

It is singular indeed, if the claim coming from so many different sources, that such phenomena are true, is wholly fallacious. It is alluded to in writings as far back as the second century, and while the present theories regarding it may be wholly untrue, a proper investigation of the subject might lead to the discovery of some principle not yet more than faintly suspected.

Had the microscope never been invented the minute constructions of our own bodies and that vast world which is revealed by microscopy, while it is invisible to the naked eye, could at best have only been conjectured. Had the early crude instruments of this class met with neglect and contempt, what a vast field of knowledge would have been forever sterile! So, no matter how seemingly unreasonable the claims may be, phenomena, especially the psychic phenomena, which carry with them the weight of a large amount of human testimony,

should receive at least careful investigation. The discoveries of the world have not all been made by learned men and women.

Their classification and explanation may require your learning to properly adjust them in the niche where they belong.

CHAPTER XV.

THE RELATION OF SLEEP AND ITS ACCOMPANYING DREAMS TO THE PHENOMENA OF HYPNOTISM, AND THE HALLUCINATIONS IN THAT STATE.

In the early part of this book I took exception to the term "hypnotism" as denoting sleep. I said that many of the hypnotized subjects were not asleep, but, on the contrary, were very actively awake. Having myself been hypnotized a number of times, I shall describe for the sake of comparison the sensations which occurred to me during the passage into the hypnotic state, and while it lasted. I do not claim that the sensations which I experienced were those which are always experienced. In fact, for reasons which I shall give later, I think they differ in some degree from those which are commonly felt.

I have questioned a large number of persons who were hypnotized by myself and by others, and have found that the sensations are essentially different according to the narrator. Every physician who has tried to analyze the

symptoms of a patient knows how difficult it often is to get from him a perfectly clear and comprehensive statement of his exact sensations.

I have questioned some fifty persons who were anæsthetized by chloroform, ether, laughing-gas, etc. Also I have questioned a number of persons who had been intoxicated. In none of these latter were the symptoms identical. Neither were descriptions of those upon whom anæsthetics were used identical. Some would say that chloroform simply made them feel as though they were going to sleep. Others would speak of suffocating sensations. Others would have dreams, some pleasant, some unpleasant, and so I might go on for pages with their descriptions. Hence it follows that if the sensations differ in different persons with the same agent employed to produce these sensations, whether it be drugs or hypnotism, no uniform description of sensations could be made to apply to all. My own sensations during the first hypnosis I ever experienced were as follows.

I voluntarily submitted in the spring of 1882 to a professional hypnotist. He commanded me to close my eyes, and said that I could not open them. I tried to open them at once and did so. Again he commanded me to close my eyes. He stroked my head and face and eyelids with his fingers.

Now, it is to be noted that at that time I was a firm believer in the doctrine of animal magnetism. I felt, or imagined that I felt, a tingling sensation in my forehead and in my eyes, which I supposed emanated from the fingers of the operator. A sensation akin to fear came over me. The operator said to me, "You are going to sleep, you are getting sleepy. You cannot open your eyes." I was conscious that my heart was beating rapidly and felt a sensation of terror. He continued to tell me that I was going to sleep, and could not open my eyes. He then made passes over my head, down over my hands and body, but did not touch me. He then said to me, "You cannot open your eyes." The motor apparatus of my lids would not seemingly respond to my will, yet I was conscious that while one part of my mind wanted to open my eyes, another part did not want to, so I was in a paradoxical state. I believed that I could open my eyes and yet could not. The feeling of not wishing to open them was not based upon any desire to please the operator. I had no personal interest in him in any way, but, be it understood, I firmly believed in his power to control me. He continued to suggest to me that I was going to sleep, and the sensation of terror previously mentioned continued to increase.

He told me that I was asleep, and placed

my hand over my head, and stated that it was rigid, and that I could not put it down. Again a part of my consciousness wanted to put it down, and another part did not. He stroked my arm and told me that it was growing numb, that it was growing insensible. He told me that I had no feeling in it. He said, "You have no feeling in it, have you?" I said, "No," and I knew that I said "No," yet I knew that I had feeling in it, and yet believed that I had no feeling in it. He pricked my hand with a pin, and said, "You do not experience any sensation." Again I answered in the negative. He said, "You feel no fatigue in the arm," and continued to prick me at intervals with a pin. He made many suggestions to me and I obeyed them. The sensation of terror continued to increase. I was not conscious of my body at all, but was painfully conscious of the two contradictory elements within me. I knew that my body existed, but could not prove it to myself. I knew that the statements made by the operator were in a measure untrue. I obeyed them voluntarily and involuntarily. This is the last remembrance that I have of that hypnotic experience. The operator commanded me to drop my arm. I knew when I did it. It seemed to me that he commanded me to wake immediately afterwards. Persons around me, upon whom I could rely, told me a number of things

which I did after dropping my arm at the command of the hypnotist, but I had no memory of them. Now, if I acted in an unconscious condition, it is perfectly clear that I could have no memory of what did not exist for the time, viz., my consciousness. It is well known to the medical profession that in that condition known as puerperal eclampsia (convulsions occurring at childbirth), the sufferer will be totally ignorant of the time elapsing during the period of the convulsions. The memory of days and even weeks will be wholly effaced. Now, if I was unconscious during the hypnotic state mentioned, it follows that my sense of the time which elapsed was also in abeyance, for it seemed to me that the hypnotist commanded me to awake as soon as I dropped my arm, although I was assured by those around me, who were my friends, that I was in this state some ten minutes after the last command of which I was conscious was given. On coming out of the hypnotic condition I was somewhat dizzy. The sensation of terror clung to me for eight or ten hours afterwards. I was hypnotized three times subsequently by the same man with similar results, the sensations being practically the same each time. I discovered for myself on the evening following the third hypnotic sitting that I could place myself by an act of my own will in a similar condition. I did

not at that time know that auto-hypnosis was possible as I had never heard of it. Owing to an imperfection of sight, the hypnotist could not hypnotize me by having me look at a bright coin (after the Braid method), because I could not see it. He told me to fix my mind on the number twenty-six and hold up my hand. This I did, and passed into a state of deep hypnosis, experiencing in a greater degree the sensation of terror before mentioned. This was in his presence and at the third hypnotic treatment which I had with him, and was in the morning at ten o'clock.

In my room that evening it occurred to me to try the same experiment. I did so. I kept the number twenty-six in my mind, in a few minutes I felt the sensation of terror but in a different way. I was intensely cold. My heart seemed to stand still. I had tinnitus aurium (ringing in the ears). My hair seemed to rise upon my scalp. I persisted in the effort, and the previously mentioned noise in my ears grew louder and louder. The roar became deafening. It crackled like a mighty fire. I was fearfully conscious of myself. Having read vivid accounts of dreams, visions, etc., it occurred to me that I would experience them. I felt in a vague way that there were beings all about me but could not hear their voices. I felt as though every muscle in my body was fixed and rigid.

The roaring in my ears grew louder still, and I heard, above the roar, reports which sounded like artillery and musketry. Then, above the din of the noise, a musical chord. I seemed to be absorbed in this chord. I knew nothing else. The world existed for me only in the tones of this mighty chord. Then I had a sensation as though I were expanding. The sound in my ears died away, and yet I was not conscious of silence. Then all consciousness was lost. The next thing I experienced was a sensation of intense cold, and of some one roughly shaking me. Then I heard the voice of my jolly landlord calling me by name, and asking if I were ill. I awoke with the taste of brandy in my mouth. My landlord had come into the room to read the newspaper to me, as was his custom, and found me stretched out in a reclining-chair. As he expressed it, "I was as white as a ghost and as limp as a rag," and he thought I was dead. He says it took him ten minutes to arouse me, which was probably true, as his good wife in the meantime brought a physician who lived near, who naturally had his visit in vain. I did not explain the cause of my indisposition.

As will be seen from the description which I have given, a sensation of terror was the predominating feeling when I was hypnotized,

both by the operator and when the state was induced by myself upon myself.

The sensations experienced by me did not resemble sleep. They did not resemble chloroform or ether narcosis, as these have been used on me several times, and the memory of them is fresh in my mind.

The sensations in the hypnotic state did not resemble the sensations produced by morphine or chloral, as I have used both of these drugs, and remember well how they affected me. Whatever may be the experiences of others, I am convinced that the result was brought about in my own case by the following agencies.

I firmly believed that something would happen when the attempt was made to hypnotize me. Secondly, I wished to be hypnotized. These, together with a vivid imagination and strained attention, brought on the states which occurred.

How far I could have carried this and what the result would have been, I cannot say ; but one thing I am sure of, and I speak now for myself only, I could not have been hypnotized against my will. Neither do I believe that any one else could be unless terror or strong faith for the time paralyzed the volition.

I do not believe the hypnotist had any power over me excepting the power which my sur-

render to my own faith and my own imagination, plus the attention and terror, gave him.

These experiments were repeated thrice during the following week, and in the third one the phenomena differed somewhat. I had several dreams in addition to the sense of terror present in the other two. I heard voices, some of them profane, some ludicrous, and all of them in a measure coherent. I awoke easily this time, having remained in the state about two hours.

I consulted the hypnotist who first hypnotized me, but, as he was an ignorant man, got little satisfaction from him. He was a public hypnotizer—that is, he gave exhibitions of hypnotism for the entertainment of the public. He advised me to discontinue my experiments upon myself, as he was afraid I would do myself harm (this was good advice), and stated that I would better not submit to hypnotism, except when he hypnotized me (which was doubtful advice).

I have compared the sensations experienced by me with those of many others who have been hypnotized. In some respects the experiences of those who were consulted resembled my own, but not in every particular.

Close analysis of the language of those with whom I have conversed about the sensations which they experienced while being hypnotized,

has convinced me that none of the states occurring in hypnosis are identical with those of natural sleep.

I have not determined whether the hallucinations of suggestion affect the consciousness in the same way as do dreams occurring in natural sleep.

Causes of Dreams in the Natural Sleep.

These may be classified under two general groups. First, those occurring as a result of peripheral stimulation of the senses, and second, those which are the products of mental association. These two sets of causes may occur separately or together. Example: A dream resulting from peripheral stimulation of the nerves. Persons frequently dream of being in a snow-storm when a portion of the body is exposed during sleep. The phenomenon to be noticed here, is that dreams magnify the sensations carried to the brain. In this we have a possible resemblance to the exaggeration produced upon the hypnotized subject by the suggestion of the operator.

Example of the second class of causes: Memory provoked by no discoverable cause may bring back long-forgotten events of childhood, and group them about with all sorts of fantastic imagery. Diseased states of the body may provoke exaggerated imagery while sleep-

ing, and in dreams our personality may be changed.

Dr. Moll cites the experience of an officer who greatly admired the achievements of Hannibal. In a dream one night he thought he was Hannibal and conducted a dream warfare, crossing the Alps with his army, and fighting again in fancy the great battles which Hannibal had fought centuries before.

There are some differences between the phenomena of deep hypnosis and those of natural sleep. In deep hypnosis the suggestion of the hypnotist is logically fitted to the ideas in the mind of the subject. In the state of deep hypnosis the hypnotist can carry on a conversation with the one hypnotized. However, certain sleeping persons will converse with a person in the room if care and tact be used by the one awake. Secrets have been elicited in this way.

The hypnotized subject will imitate the movements of the operator. This is also true within certain very narrow limits of persons sleeping naturally. A person while sleeping will turn in bed and execute some simple command, but if it is long continued the sleeper will generally awake.

Natural Somnambulism.

A sleep-walker resembles a hypnotized person, as is well known, and a somnambulist will

do a large amount of work and will accomplish wonderful feats while perfectly unconscious. The resemblance between these two states is so marked that one of the states of hypnotism has been called "artificial somnambulism."

Dr. Moll divides spontaneous natural somnambulism into three stages. First, that in which the sleeper speaks. Second, that in which he makes all sorts of movements but does not leave his bed. Third, that in which he gets up and walks about, and performs the most complex actions.

Dr. Moll says, comparing the phenomena of natural sleep with those of hypnosis, "As regards the phenomena of natural sleep my experience is that the persons who are the most restless in natural sleep, who talk and throw themselves about, are the most inclined to lively movements in hypnosis." He cites the following from Liébault, Max Simon, Charpignon, and Brierre de Boismont.

"Hypnotic suggestion finds an analogy in sleep. Of course the effect of dreams upon the organism is not so easy to observe as is the effect of suggestion, since most dreams are forgotten. However, I shall mention some of these analogous cases. Persons who dream of a shot and wake up in consequence, continue to hear the reverberation clearly after they awake. Others after waking feel a pain of which they have been

dreaming. I shall merely mention certain phenomena which resemble these, the dreams which are continued into waking life, which may be compared to continuative post-hypnotic suggestions. There are well-known dream-pictures which are not recognized as dreams, and which are taken for reality after waking."

Féré cites a case in which hysterical paraplegia was induced : "A girl dreamed for several nights that men were running after her. She grew daily more exhausted, and the weakness of her legs increased till a hysterical paraplegia of both legs declared itself." It seems to me that the hysteria may have been the cause of the dream in Féré's case, instead of the result of it.

Disorders of Natural Sleep.

The morbid conditions of sleep have not received the study they deserve. They resemble artificially induced hypnosis. Suggestion plays an important part. Bad dreams may frequently be prevented during sleep by suggestion in an artificially induced hypnotic condition during the day. Patients will obey suggestions made to them while dreaming. Certainly some of these disorders are akin to, if not identical with, auto-hypnosis. Talking in the sleep is a common phenomenon. It is

curious that Laura Bridgeman (the deaf, dumb, and blind woman), would converse with herself while sleeping, by putting one hand against the other and spelling the words, using the deaf-and-dumb alphabet, with one hand, and feeling with her other the words spelled with the first hand.

It has been mentioned before that the hypnotic state may be artificially induced on a sleeping person. This is best accomplished when one is half asleep, and the power of the will is for the time withdrawn. There are many disordered states of sleep in which a person will not only obey suggestions after the manner of one upon whom artificial hypnosis has been induced, but in which many elements not found in artificial hypnosis play a part.

Dreams are the fairies which haunt us while we are asleep, but they are under the power of the king of all the fairies, the human will. When he is asleep another faculty of the mind may exercise his wand and change the persons of these beings that dwell with us in dreamland. They will for the usurper then build a new world, create more fantastic beings, and draw from the depths of the unknown, weird, strange imagery, and construct new palaces of thought for the fancy to dwell in. They know no space. They even soothe old Father Time to sleep, and while he is sleeping, they put into a

man's life the experiences of countless ages, in a minute, aye, in a second of time.

The Relation of Hypnotism to Morbid Catalepsy, Epilepsy, and the Insanities.

Hypnotism has been called an artificial neurosis, an induced insanity, an artificial hysteria, a suggestive delirium, etc. It matters very little what a thing is called. It must be judged of solely by its effects. While the state is transitory its results are good or ill according to the use that is made of it. It differs from all these morbid states in two essentials. First, it is induced by the will of the operator or by that of the subject or both, and second, it is broken by him or by the will of the subject.

It is, in either case, the child of intention parented by volition, while the other states are the result of either external or internal causes, acting independently of the will and volition. Hypnotism is, in a sense, the mind, the consciousness, acting in obedience to another mind, another consciousness, and not being in relation and harmonizing with the phenomena of ordinary necessity, the phenomena of life. It is, so to speak, a mimicry of existence. It enacts over again experiences without causality, or, better, it is governed mainly by the circumstances of mental sug-

gestion, rather than by the circumstances of ordinary external environments. All of the healthy mental states may be produced during hypnosis. All of the diseased states of the mind, all of the harsh discordant elements, may be likewise reproduced by suggestion.

CHAPTER XVI.

TELEPATHY—THOUGHT-TRANSFERENCE—MIND-READING.

THESE three terms denote the super-sensory communications between two or more individuals—that is, the ability which one mind is supposed to possess to receive thoughts from another, without the communication passing, in the usual way, through the channels of the senses.

The word "telepathy" itself was invented or brought into use by the British Society for Psychical Research. The word by its derivation suggests that the influence in question operates across a considerable distance of space, and this is ordinarily the case in the instances of spontaneous telepathic phenomena so ably reported by the British Society for Psychical Research.

Doubtless many of my readers will, on seeing the heading of this chapter, be sceptical of such a thing as thought-transference being a possibility.

If this scepticism is intelligent, I, and, for

that matter, the whole thinking world, will welcome it. If it is born of ignorance plus conceit, it will only harm him who is in need of enlightenment.

The British Society for Psychical Research has collected a vast deal of evidence bearing on this subject. It is tabulated and classified and intelligently commented upon by the authors in "Phantasms of the Living," to which I gladly refer the reader for more extended information than I have space for, far more than I possess as the result of my own experience. The work consists of two volumes, and in every respect is scientific and scholarly.

In this chapter I shall give a very brief outline of the subject, relate some of my own experiences, and quote a few cases from the work just mentioned.

The subject of telepathy is broadly divided into two classes, experimental and spontaneous.

Experimental telepathy is that form of telepathy which occurs as a result of the concerted endeavor of two or more individuals, one endeavoring to receive, and the other attempting to project, a mental image. The one receiving the thought from the mind of the other is called the percipient; the one whose thoughts are read is termed the agent.

Mr. Hudson claims that experimental telepathy is much more easily produced when hyp-

notism is practised after the method of Mesmer, than after the method of Liébault and Braid.

The history of the subject is summarized in Hudson's "Law of Psychic Phenomena," to which the reader is referred.

Fiction is filled with accounts of both experimental and spontaneous telepathy, a notable instance of which is found in Charlotte Bronté's book, "Jane Eyre." As the reader is doubtless aware, in Bronté's book, Jane Eyre hears Mr. Rochester call her when he is miles away, and afterwards is made to attest to the truth of the experience. Many other instances could be given.

I shall first consider spontaneous telepathy.

Spontaneous telepathic experiences may be received either as simple ideas, or as hallucinations of sight, hearing, touch, or as all three combined.

The evidence of the existence of this kind of telepathy is well-nigh universal.

Personally, I have scarcely talked with a family in my very large acquaintance, in which some member of it has not had some such experience as will be related.

These telepathic impressions or hallucinations may occur in the waking state at all times of day. They may occur as dreams in sleep. They frequently occur just as, or after, one has retired, before falling asleep.

A great deal of evidence has been adduced by the British Society for Psychical Research, which goes to prove that it is a fairly frequent occurrence for persons to see images of friends who are very ill, who are dying, or who are just dead.

The Society has carefully eliminated, as far as possible, all errors in the cases cited, and from their report little or no doubt is left that such phenomena are of frequent occurrence.

I shall cite one case which came under my own immediate observation, and which has nowhere been published.

It occurred in the winter of 1877, in the home of my uncle. Mrs. E., a Protestant Irish lady, widowed, sixty years of age, was employed to read to me, and had lived in our house some months. Her reputation was good, and she was known by our family to be a truthful woman. She was well educated and intelligent.

One morning on coming down to breakfast, she told us that her aunt, a Mrs. B., had died the night before in the city of Cork, Ireland. She stated that she saw her aunt, described her death-scene, and heard her call her, Mrs. E., by name.

She saw an old-fashioned clock in her aunt's room, and the hands pointed to 1:15 A.M. At three o'clock that afternoon the lady received a

cablegram informing her of the death of her aunt, confirming the hour of death as seen by Mrs. E.

Subsequently a letter received by Mrs. E. stated that the dying words of the aunt were repeated calls for her niece.

This same lady, so she told me, had on previous occasions experienced similar telepathic phenomena.

The following cases are reported from "Phantasms of the Living," Vol. I. The first case is reported by Capt. G. F. Russell Colt, of Gartsherrie, Coatbridge, Scotland.

"I was at home for my holidays and residing with my father and mother, not here but at another old family place in Mid-Lothian, built by an ancestor in Mary Queen of Scots' time, Inveresk House.

"My bedroom was a curious old room, long and narrow, with a window at one end of the room and a door at the other. My bed was on the left of the window, looking towards the door. I had a very dear brother (my eldest brother), Oliver, lieutenant in the 7th Royal Fusiliers. He was about nineteen years of age, and had at that time been for some months before Sebastopol. I corresponded frequently with him, and once when he wrote while in low spirits, not being well, I said in answer that he was to cheer up, but that if anything happened to him,

he must let me know by appearing to me in my room, where we had often as boys together sat at night and indulged in a surreptitious pipe and chat. This letter (I found subsequently) he received as he was about to receive the Sacrament from a clergyman who has since related the fact to me. Having done this he went to the entrenchments and never returned, as in a few hours afterwards the storming of the Redan took place. He, on the captain of his company falling, took the vacant place, and led his men bravely on. He had just led them within the walls, though he was already wounded in several places, when a bullet struck him in the right temple and he fell amongst heaps of others, where he was found in a sort of kneeling posture (being propped up by other dead bodies) thirty-six hours afterwards. His death took place, or rather he fell, though he may not have died immediately, on the 8th of September, 1855.

"That night I awoke suddenly, and saw, facing the window of my room, by my bedside, surrounded by a light sort of phosphorescent mist, as it were, my brother kneeling. I tried to speak but could not. I buried my head in the bedclothes, not at all afraid (because we had all been brought up not to believe in ghosts and apparitions), but simply to collect my ideas, because I had not been thinking or dreaming of him, and, indeed, had forgotten all about what

I had written to him a fortnight before. I decided that it must be a fancy, and the moonlight playing on a towel, or something out of place. But looking up, there he was again, looking imploringly and sadly at me. I tried to speak but found myself tongue-tied. I could not utter a sound. I sprang out of bed, glanced through the window, and saw there was no moon, but that it was very dark and raining hard. This I could tell by the sound against the panes. I turned and still saw poor Oliver. I shut my eyes and walked to the door of my room. As I turned the handle before leaving the room I looked back once more. The apparition turned his head slowly and looked anxiously and lovingly at me, and I saw then for the first time, on the right temple a wound with a red stream from it. His face was a waxy pale tint, but transparent-looking, and so was the reddish mark. But it is almost impossible to describe his appearance. I only know that I shall never forget it.

"I left the room and went into a friend's room and lay on the sofa the rest of the night. I told him why. I told others in the house, but when I told my father he ordered me not to repeat such nonsense, and especially not to let my mother know.

"On the Monday morning following he received a note from Sir Alexander Milne, to say

that the Redan was stormed, but no particulars. I told my friend to let me know if he saw the name among the killed and wounded before I did. About a fortnight later he came with a very grave face into my room in my mother's house in Athole Crescent, in Edinburgh. I said, 'I suppose it is to tell me the sad news I expect?' and he said, 'Yes.' Both the colonel of the regiment and one or two officers who saw the body confirmed the fact that the appearance was much as I had described it, and the death-wound was exactly where I had seen it. But none could say whether he actually died at the moment. His appearance, if so, must have been some hours after death, as he appeared to me a few minutes after two in the morning. Months later a small prayer-book and the letter I had written him were returned to Inveresk. They had been found in the inner breast-pocket of the tunic which he wore at death. I have them now."

"The account in the 'London Gazette Extraordinary,' of September 22d, 1855, shows that the storming of the Redan began shortly after noon, on September 8th, and lasted upwards of an hour and a half. We learn from Russell's account that 'the dead, the dying and the injured were all lying in piles together,' and it would seem that the search for the wounded was still continuing on the morning of the 9th.

The exact time of Lieutenant Oliver Colt's death is uncertain.

Captain Colt told me in conversation that he has never on any other occasion experienced a hallucination of the senses.

He mentioned several persons who would be able to corroborate this narrative. We received the following letter from his sister, Mrs. Hope, of Fermoy.

DECEMBER 12th, 1882.

"On the morning of Sept. 8th, 1855, my brother, Mr. Colt, told myself, Captain Ferguson of the 42d regiment, since dead, and Major Borthwick of the Rifle Brigade (who is living), and others, that he had during the night awakened and seen, as he thought, my eldest brother, Lieut. Oliver Colt of the Royal Fusiliers (who was in Crimea), standing between his bed and the door; that he saw that he was wounded in more than one place—I remember he named the temple as one place—by bullet-wounds; that he aroused himself, rushed to the door, with closed eyes and looked back at the apparition, which stood between him and the bed. My father enjoined silence, lest my mother should be made uneasy, but shortly afterwards came the news of the fall of the Redan and of my brother's death. Two years afterward, my husband, Colonel Hope, invited my brother to dine with him; the former being still a lieutenant in the Royal Fusiliers, the latter an ensign in the Royal Welsh Fusiliers. While dining they were talking of my eldest brother. My husband was about to describe his appearance when found, when my brother described what he had seen, and to the astonishment of all present, the description of the wounds tallied with the facts. My husband was my eldest

brother's greatest friend, and was among those who saw the body as soon as it was found."

Another case is reported by a Miss L., who withholds her name from publication, in deference to the views of a near relative.

JANUARY 4th, 1886.

"On one of the last days of July, about the year 1860, at 3 o'clock P. M., I was sitting in the drawing-room at the Rectory, reading, and my thoughts entirely occupied. I suddenly looked up, and saw most distinctly a tall, thin old gentleman enter the room and walk to the table. He wore a peculiar, old-fashioned cloak, which I recognized as belonging to my great uncle. I then looked at him closely, and remembered his features and appearance perfectly, although I had not seen him since I was quite a child. In his hand was a roll of paper, and he appeared to be very agitated. I was not in the least alarmed, as I firmly believed he was my uncle, not knowing then of his serious illness. I asked him if he wanted my father, who, as I said, was not at home. He then appeared still more agitated and distressed, but made no remark. He then left the room, passing through the half-open door. I noticed that although it was a very wet day, there was no appearance of his having walked either in mud or rain. He had no umbrella, but a thick walking-stick, which I recognized at once when my father brought it home after the funeral. On questioning the servants they declared that no one had rung the bell, neither did they see any one enter. My father had a letter by the next post, asking him to go at once to my uncle, who was very ill in Leicestershire. He started at once, but on his arrival was told that he had died exactly at 3 o'clock that afternoon, and had asked

for him by name several times in an anxious and troubled manner, and a roll of paper was found under his pillow.

I may mention that my father was his only nephew, and, having no son, he always led him to think that he would have a considerable legacy. Such, however, was not the case, and it is supposed that, as they were always good friends, he was influenced in his last illness, and probably, when too late, he wished to alter his will.

"E. F. L."

In answer to inquiries, Miss L. adds,—

"I told my mother and an uncle at once about the strange appearance before the news arrived, and also to my father directly he returned, all of whom are now dead. They advised me to try to dismiss it from my memory, but agreed that it could not be imagination, as I described my uncle so exactly; and they did not consider me to be either of a nervous or superstitious temperament.

"I am quite sure that I stated the facts truthfully and correctly to Major Taylor. The facts are as fresh in my memory as if they only happened yesterday, although so many years have passed away.

I can assure you that nothing of the kind ever occurred before or since." (This is in answer to the question whether Miss L. had ever had an hallucination of the senses on any other occasion). "Neither have I been subject to nervous or imaginative fancies. This strange apparition was in broad daylight, and as I was only reading the 'Illustrated Newspaper' there was nothing to excite my imagination."

I could cite a number of such cases but it seems unnecessary.

There are but three essential points which should be noted.

1. Deception.
2. Chance.
3. An accidental hallucination of the senses twisted by the narrator, intentionally or otherwise, to fit some occurrence.

The mass of evidence collected renders these three objections invalid.

If the reader wishes to verify this for himself the information is easy of access, therefore it will not be discussed further in this place. He is referred to "Proceedings of the British Society for Psychical Research of August, 1894."

The character of the hallucinations or phantasms varies widely in the different cases, so that no attempt will be made here to describe them at length.

Experimental Telepathy.

This is not so easy a task. It is beset on every side with difficulties, and the experimenter is liable to mistakes on every hand.

I shall cite my own experience, and then quote other cases.

My first attempt in experimental telepathy was a ludicrous failure. I shall give the case in full.

R. was a young man, twenty-eight years of

age. He was hypnotized for the cure of writer's cramp. The method of Mesmer (by passes) was used. While in the mesmeric state he voluntarily told me what I did when I went into an adjoining room. He said I poured some medicine from a bottle into a glass and drank it. He complained that it tasted bitter to him. The medicine was bitter.

I, standing behind him, took a pencil in my left hand and made motions in the air with it describing the figures 8, 5, 2, 6. He told me correctly the figures described without turning his head. I noticed incidentally that my sleeve rustled as I made the movements. This was prevented and again different figures described. He failed utterly.

A slight screen was surreptitiously interposed so as to prevent him from seeing me, and my sleeve was allowed purposely to rustle. Again he described correctly the figures made.

The experiment was tried six times, and whenever he could hear the movements of my arm, he could correctly tell what was being done with it.

I asked him to guess at a certain word in my mind. I selected the German word "hauptmann," and concentrated my attention upon it, standing four feet away from him. He made several ineffectual attempts.

He then asked to be allowed to touch my

hand, and said that he thought he could spell it for me.

This was allowed, and holding my hand lightly in his, he began at the beginning of the alphabet and stopped at "h." In this way he went through all the letters and spelled out the word correctly.

He was then asked to try another, and held my hand as before. I selected a simple English word, "cap." He began the alphabet as before, and I misled him by moving the muscles in my hand very slightly upon the wrong letters and he spelled out the letters d-r-h-i-o, which of course had no meaning.

I again gave him my hand and thought of "cap" and "stick." I allowed my muscles to move slightly upon the correct letters and he correctly spelled cap, but did not get at the word stick at all, which was associated in my mind with the word cap.

A word of caution here is necessary.

It will be noticed that I allowed the young man to proceed in his own way, and did not impose scientific test conditions upon his method of procedure.

In studying phenomena it is best to allow the hynotized subject to proceed as he pleases, and if possible make the tests without his knowledge, for in this way suspicion will not in any way act as an embarrassment to him.

Twenty-eight similar experiments were tried, and in each of them it was proved beyond a doubt that his results were due to muscle-reading alone.

All the faculties of a hypnotized subject in the lighter stages of hypnosis are wonderfully acute, probably the result of concentrated attention, and they will often perceive a very slight occurrence which ordinarily would not be noticed.

The slightest movements of the muscles may give them a hint, when it would not be noticed by a man in his normal condition.

When the young man told me, as he did at first, without my solicitation, correctly, that the medicine poured into the glass and drank by me was bitter, he may have temporarily experienced telepathically the taste of the medicine. He may have shrewdly guessed at it.

My second case was that of a girl suffering with hysterical tremor. She was hypnotized for the cure of it. She complained one day while hypnotized that her mouth tasted of spice. It occurred to me, as I had been chewing some spice, that it might be a telepathic phenomenon. I said nothing, and the next time she was hypnotized I surreptitiously put a tablet of quinine in my mouth. She immediately asked for water, and said that her mouth was

very bitter. The water was given her, and a screen was placed between her and me. I then put cayenne pepper into my mouth, and she began to cry and said some one had put pepper into the water given her.

As the water was handed her by another person who did not even know that I had pepper about my person, the experiment was conclusive.

I put a rather large amount of pepper into my mouth and it burned me severely, and the girl cried and was becoming so hysterical that I calmed her by suggestion and awoke her.

The burning in her mouth vanished at once, but not so in mine.

Nineteen experiments were tried with this girl. Of the nineteen, six were conclusive, four were doubtful, and the other nine were failures.

Similar experiments have been tried by me with thirty-six different hypnotic subjects. They were all under thirty years of age. The average of experiments with the thirty-six subjects was eight for each subject. Of the 288 experiments, 69 were entirely successful. They embraced experiments in the transference of numbers, words, names of objects, taste, smell, etc. One experiment tried by me is well worth relating.

One of my subjects while hypnotized was

told to remain perfectly still for five minutes and to relate to me at the end of this time any sensation he might experience. I passed into another room and closed the door and locked it; went into a closet in the room and closed the door after me; took down from the shelf, first a linen sheet, then a pasteboard box, then a toy engine, owned by a child in the house. I went back to my subject and asked him what experiences he had had.

He said I seemed to go into another room and from thence into a dark closet. I wanted something off the shelf, but did not know what. I took down from the shelf a piece of smooth cloth, a long, square, pasteboard box, and a tin engine. These were all the sensations he had experienced. I asked him if he saw the articles with his eyes which I removed from the shelf. He answered that the closet was dark and that he only felt them with his hands. I asked him how he knew that the engine was tin. He said, "By the sound of it." As my hands touched it I heard the wheels rattle. Now the only sound made by me while in the closet was simply the rattling of the wheels of the toy as I took it off the shelf. This could not possibly have been heard as the subject was distant from me two large rooms, and there were two closed doors between us, and the noise was very slight indeed. Neither could the sub-

ject have judged where I went, as I had on light slippers which made no noise.

The subject had never visited the house before, and naturally did not know the contents of the closet, as he was carefully observed from the moment he entered the house.

I could give many more interesting experiences of my own, but have cited sufficient, I trust, not to convince my readers, but to interest them so that they may if they wish pursue the same line of experiments for themselves.

Experimental Thought-Transference in the Normal State.

This is another phase of the subject, but is hardly less interesting than telepathy during hypnosis.

The most extravagant claims have been made for it, and much which has been stated as telepathy, has not been genuine thought-transference.

Thanks to the Society for Psychical Research, a very large amount of evidence has been collected and tabulated. My own experiments in this direction have led to some interesting results.

If it be true that one mind can influence another and convey thoughts and ideas to it without using the ordinary avenues of the

senses, it is the most stupendous discovery in psychology. If it is not true, it is equally important to disprove it.

The Right Hon A. J. Balfour, M. P., President of the Society for Psychical Research, in his address published August, 1894, says:

"What I am asserting is that the facts which we come across are very odd facts, and by that do not merely mean queer and unexpected. I mean 'odd' in the sense that they are out of harmony with the accepted theories of the material world. They are not merely dramatically strange, they are not merely extraordinary and striking, but they are odd in the sense that they will not easily fit in with the views which physicists and men of science generally give us of the universe in which we live.

"In order to illustrate this distinction I will take a very simple instance. I suppose everybody would say that it would be an extraordinary circumstance if, at no distant date, this earth on which we dwell were to come into collision with some unknown body travelling through space, and, as the result of the collision, be resolved into the ordinary gases of which it is composed. Yet though it would be an extraordinary and even an amazing event, it is after all one of which no astronomer, I venture to say, would assert the impossibility. He

would say, I suppose, that it was unlikely, but that if it occurred it would not violate, or even modify, his general theories as to the laws which govern the movements of the celestial bodies. Our globe is a member of the solar system which is travelling I do not know how many miles a second in the direction of the constellation Hercules. There is no *a priori* ground for saying that in the course of that mysterious journey, of the cause of which we are perfectly ignorant, we shall not come across some body in inter-stellar space which will produce the uncomfortable results which I have ventured to indicate. And, as a matter of fact, in the course of the last two hundred years, astronomers have themselves been witness to stellar tragedies of incomparably greater magnitude than that which would be produced by the destruction of so insignificant a planet as the world, in which we happen to be personally interested. We have seen stars which shine from an unknown distance, and are of unknown magnitude, burst into sudden conflagration, blaze brightly for a time, and then slowly die out again. What that phenomenon precisely indicates of course we cannot say, but it certainly indicates an accident of far more startling and tremendous kind than the shattering of our particular world, which to us would seem, doubtless, extraordinary enough.

"This, then, is a specimen of what I mean by a dramatically extraordinary event. Now I shall give you a case of what I mean by a scientifically extraordinary event, which, as you will at once perceive, may be one which at first sight, and to many observers, may appear almost commonplace and familiar. I have constantly met people who will tell you, with no apparent consciousness that they are saying anything more out of the way than an observation about the weather, that by an exercise of their will they can make anybody at a little distance turn around and look at them. Now such a fact (if fact it be) is far more scientifically extraordinary than would be the destruction of this globe by celestial catastrophe as I have imagined. How profoundly mistaken, then, are they who think that this exercise of will power as they call it, is the most natural and most normal thing in the world, something that everybody would have expected, something which hardly deserves scientific notice or requires scientific explanation. In reality it is a profound mystery, if it be true, or if anything like it be true; and no event, however startling, which easily finds its appropriate niche in the structure of the physical sciences ought to excite half so much intellectual curiosity as should this dull and, at first sight, commonplace phenomenon."

The claim has been made by the opponents of spiritualism that many of the phenomena which are attributed by the spiritualists to be the results of spirits are really explicable upon this hypothesis. If it be true, the phenomena are scarcely less wonderful than they would be if of spiritual origin.

This is not the book in which to discuss at length such a supposition, and it is merely noted here for the sake of calling attention to the possibility of such being the fact.

If it be true that one living mind can affect another at a distance, it does not follow that the mind might not do so in another world. It is a very common experience for some one to think of some friend before meeting him, when the person has not been in the mind for years. Direct thought-transmission by experiment is not so thoroughly known. The experiment is easily tried, and it is to be hoped that what is here written may lead to a wider study of the subject.

I shall cite a few of the conditions under which such experiments may be made.

Let three persons agree upon one article, say a playing card, while the fourth is absent from the room. When number four comes in let all keep perfectly quiet, and concentrate their minds on the article agreed upon. In an astonishing number of instances the experi-

ment will prove a success—the fourth person will name the correct card.

The following conditions should be observed.

Do not indicate by look or gesture the object agreed upon.

Do not come in contact with the percipient.

Do not laugh at or make fun of the experiment, but simply keep the mind passive. All parties should be in good temper at the time such experiments are made.

There is no objection to any amount of merriment before and after the experiment, and great care should be taken not to ridicule the failure of the percipient.

I have tried many such experiments. My success averages about 55 per cent.

I quote the following from "Phantasms of the Living," by Edmund Gurney, M.A., Frederic W. H. Myers, M. A., and Frank Podmore, M. A., in Vol. I.

The experiments of these gentlemen were in every way conducted scientifically and can be relied upon for accuracy of statement, and freedom from previously conceived prejudice or bias.

"Easter, 1881. Present, Mr. and Mrs. Creery and family, and W. F. Barret, the narrator. One of the children was sent into an adjoining room, the door of which was closed. On returning to the sitting-room, and closing

its door also. I thought of some object in the house, fixed upon at random. Writing the name down I showed it to the family present, the strictest silence being preserved throughout.

"We then thought silently of the thing selected. In a few seconds the door of the adjoining room was heard to open, and, after a very short interval of time, the child would enter the sitting-room, generally with the object selected.

"No one was allowed to leave the sitting-room after the object had been fixed upon; no communication with the child was conceivable as her place was often changed. Further, the only instructions given the child were to fetch some object in the house that I would fix upon, and together with the family keep in mind this idea, to the exclusion as far as possible of all others.

"In this way I wrote down among other things, a hair-brush, it was brought; an orange, it was brought; a toasting-fork, failed on the first attempt, a pair of tongs being brought, but on second trial it was brought. With another child (among other trials not here mentioned) a cup was written down by me; it was brought; a saucer; this was a failure, a plate being brought; no second trial allowed. The child being told it was a saucer replied,

'That came into my head, but I hesitated as I thought it unlikely you would name saucer after cup, as being too easy.'

"But of course the most satisfactory condition was that only the members of the investigating committee should act as agents, so that signals could not possibly be given unless by one of them. This condition clearly makes it idle to represent the means by which the transferences took place as simply a trick which the members of the investigating committee failed to detect. The trick, if trick there was, must have been one in which they, or one of them, actively shared: the only alternative to collusion on their part being some piece of carelessness amounting to almost idiocy—such as uttering aloud the word required or leaving the selected card exposed on the table. The following series of experiments were made April 13th, 1882. The agents were Mr. Myers and the present writer, and two ladies of their acquaintance, the Misses Mason, of Morton Hall, Retford, who had become interested in the subject by the remarkable successes which one of them had obtained in experimenting among friends.

"As neither of the ladies had ever seen any of the Creery family till just before the experiments began, they had no opportunity for arranging a code of signals with the children; so that any hypothesis of collusion must in this

case be confined to Mr. Myers or the present writer. As regards the hypothesis for want of intelligence, the degree of intellectual behavior required of each of the four agents was simply this. (1) To keep silence on a particular subject; and (2) to avoid the unconsciously displaying a particular card or piece of paper to a person situated at some yards' distance. The first condition was realized by keeping silence altogether; the second by remaining quite still. The four observers were perfectly satisfied that the children had no means at any moment of seeing, either directly or by reflection, the selected card or the name of the selected object. The following is the list of trials,—

"Objects to be named. (These objects had been brought and still remained in the pocket of one of the visitors. The name of the object selected for trial was secretly written down, not spoken.)

A white penknife.—Correctly named with color the first trial.

Box of almonds.—Correctly named.

Threepenny piece.—Failed.

Box of chocolate.—Button box said; no second trial given.

(A penknife was hidden, but the place was not discovered.)

Fictitious names to be guessed.

Martha Billings.—"Biggis" was said.
Catherine Smith.—Catherine Shaw was said.
Henry Cowper.—Failed.
Cards to be named :
Two of clubs.—Right first time.
Queen of diamonds.—Right first time.
Four of spades.—Failed.
Four of hearts.—Right first time.
King of hearts.—Right first time.
Two of diamonds.—Right first time.
Ace of hearts.—Right first time.
Nine of spades.—Right first time.
Five of diamonds.—Right third time.
Two of spades.—Right first time.
Eight of diamonds.—Failed.
Three of hearts.—Right first time.
Five of clubs.—Failed.
Ace of spades.—Failed.

"The chances against accidental success in the case of any one card are, of course, 51 to 1, yet out of the fourteen successive trials, nine were successful at the first trial, and only four trials were complete failures. The odds against the occurrence of the five successive running, in the card series, are considerably over 1,000,000 to 1. On none of these occasions was it even remotely possible for the child to obtain by ordinary means a knowledge of the object named. Our own facial expression was the only index open to her ; and even if we had not purposely looked

as neutral as possible, it is difficult to imagine how we could have unconsciously carried, say, the two of diamonds, written upon our foreheads.

"During the ensuing year, the committee, consisting of Prof. Barrett, Mr. Myers, and the present writer,* made a number of experiments under similar conditions, which excluded contact and movement, and which confined the knowledge of the selected object—and therefore the chance of collusion with the percipient—to their own group. In some of these trials conducted at Cambridge, Mrs. F. W. H. Myers and Miss Mason also took part. In a long series conducted at Dublin, Professor Barrett was alone with the percipient. Altogether these scrupulously guarded trials amounted to 497, and of this number 98 were completely successful at the first guess, and 45 at the second.

"A large number of trials was also made in which the group of agents included one or more of the Creery family; and as bearing on the hypothesis of an ingenious family trick, it is worth noting that—except when Mr. Creery himself was thus included—the percentage of successes was, as a rule, not appreciably higher

* Note: By "the present writer" is meant one of the authors of "Phantasms of the Living."

under these conditions than when the committee alone were in the secret."

Mr. Esdaile, for many years Presidency Surgeon in Calcutta, whose observations on hypnotic phenomena now form an accepted part of physiological science, gives the following case of transference of taste between himself and a patient whom he had mesmerized. The subject was a young Hindoo, Baboo Mohun Mittre, who had been operated upon painlessly whilst in the mesmeric trance.

"One day that the Baboo came to the hospital to pay his respects, after getting well, I took him into a side room, and mesmerizing him until he could not open his eyes, I went out and desired my assistant surgeon to procure me some salt, a slice of lime, a piece of gentian, and some brandy, and to give them to me in any order he chose, when I opened my mouth. We returned, and, blindfolding Lallee Mohun, I took hold of both his hands, and opening my mouth, had a slice of half-rotten lime put into it by my assistant. Having chewed I asked, 'Do you taste anything?' 'Yes. I taste a nasty old lime' and he made a very wry face in consequence. He was equally correct with all the other substances, calling the gentian by its native name, cheretta; and when I tasted the brandy, he said it was shrab (the general name for wine and spirits).

Being asked of what kind, he said, 'What I used to drink—brandy.' For I am happy to say he was cured of his drunken habits (formerly drinking two bottles of brandy a day) as well as of his disease."

The following extract entitled, "Production of local anæsthesia," is taken from "Apparitions and Thought-Transference," by Frank Podmore, M.A., London.

"In experiments carried on with various subjects at intervals through the years 1883–87, at some of which the present writer assisted, Mr. Edward Gurney had shown that it was possible by means of the unexpressed will of the agent to produce local anæsthesia in certain persons. (S. P. R. vol. i. pp. 257–260; ii. 201–205; iii. 453–459; v. 14–17.) In these experiments the subject was placed at a table, and his hands were passed through holes in a large brown-paper screen, so that they were completely concealed from his view. Mr. G. A. Smith then held up his hands at a distance of two or three inches from the finger indicated by Mr. Gurney, at the same time willing that it should become rigid and insensible. On subsequently applying appropriate tests it was found, as a rule, that the finger selected had actually become rigid and was insensible to pain. In the last series of 160 experiments Mr. Gurney, as well as Mr. Smith, held his hand over a particular finger. In 124 cases only the finger over which Mr. Smith's hand had been held was affected; in 16 cases Mr. Gurney and Mr. Smith were both successful; in 13 Mr. Gurney was successful and Mr. Smith failed. In the remaining 7 cases no effect was produced. It is noteworthy that in a series of 41 similar trials, in which Mr.

Smith, while holding his hand in the same position, willed that no effect should be produced, there was actually no effect in 36 cases; in 4 cases the finger over which the hand was held, was affected. The rigidity was tested by asking the subject at the end of the experiment, to close his hands. When he complied with the request the finger operated on—if the experiment had succeeded—would remain rigid. The insensibility was proved by pricking, burning, or by a current from an induction coil. In the majority of the successful trials the insensibility was shown to be proof against all assaults, however severe.

"In these earlier experiments it seemed essential to success that Mr. Smith's hand should be in close proximity to that of the subject, without any intervening barrier. These conditions made it difficult to exclude the possibility of the subject learning, by variations in temperature, or by air currents, which finger was actually being operated on; though it was hard to conceive that the percipient could by any such means have discriminated between Mr. Gurney's hand and Mr. Smith's.*

On the other hand, even if this source of error was held to be excluded, the interpretation of the results remained ambiguous. As a matter of fact, Mr. Gurney himself was inclined to attribute the effects produced, not to telepathy, as ordinarily understood, but to specific vital effluence, or, as he phrased it, a kind of nervous induction, operating directly on the affected part of the percipient's organism. (Pro. S. P. R. vol. v. pp. 254–259.)

With a view to test this hypothesis further, ex-

*I suppose that the gentleman feared that the subject would either feign anæsthesia, or that if he knew that it was expected of him, suggestion would produce the anæsthesia described. This is not, however, stated in the text.

periments of the same kind were made by Mrs. Sidgwick during the years 1890 and 1892, the subjects being P. and Miss B. already mentioned. The percipient was throughout in a normal condition. As before, he sat at a table, with his hands passed through holes in a large screen, which extended sufficiently far in all directions to prevent him from seeing either the operator or his own hands. Mr. Smith, as before, willed to produce the desired effect in the finger which had been intimated to him, either by signs or writing, by one of the experimenters."

Similar cases have been quoted by M. Richet and his results were fairly good.

From the few cases cited, both from my own personal experience and from the reports of the Society for Psychical Research, it is evident that phenomena exist, which would lead naturally to the supposition that the mind may have other channels of communication than the ordinary ones.

I do not assert dogmatically that it has, and granting that it has, I have no theory to explain the phenomena. I do not know what the essence of thought is, or whether the mind is merely associated with or is the result or the product of the chemico-physical life of the nervous system. It may be both. That these phenomena have been the bases of the development of many religions the most casual observer must be convinced. Prophecies have been made in all ages. Some of them have proven true.

Whether they are all explainable upon intellectual insight cannot be said, but it certainly seems not. It is a strange thing that many are willing to believe miracles and marvels occurring some thousands of years ago, while they are entirely unwilling to listen to similar events occurring in this modern civilization. Psychical research of all kinds is handicapped by superstition and beset everywhere with difficulties.

I would strongly urge that the work be continued in America upon the lines laid down by the British Society of Psychical Research. It is argued that nothing is accomplished by adding more evidence to prove phenomena already clearly demonstrated. I reply that we can never make new discoveries in this field without constant experimentation. Mighty truths are developed slowly, they are not discovered wholly by one individual. The locomotive engine is not the child of one brain, but the product of many. So the subjects of telepathy, hypnotism, and kindred topics will not be developed or mastered by any one mind. Probably the question of telepathy will not be settled satisfactorily in the few remaining years of this century, but it will be settled. Instruments will be found of which we are now ignorant. Our present crude methods of investigation will be improved.

Before closing this chapter, I wish to add a word of caution about public exhibitions of telepathy.

There are men who travel over this country and give exhibitions something like the following:

A woman is placed on the stage blindfolded and with her back to the audience. The showman goes through the form of mesmerizing or hypnotizing her. He then asks different persons in the audience to hold up articles: a watch, a knife, etc., are held up. The woman tells what the articles are which are seen by the showman. There is usually a pre-arranged method of signalling; generally words are used to convey the idea.

For instance, in a case observed by me, the man told the woman to "hurry up, you should be able to tell that quickly." Those words meant a watch, and she proceeded to state that it was a watch. Many similar results occurred during the evening. Of course these exhibitions are unscientific.

Muscle-reading also has been mentioned. The experiment is easily tried, and any one may convince himself how easy it is to do many apparently wonderful things in this direction.

By means of it a blindfolded man may drive a horse and carriage through the streets of a large city. Many find articles which have been

hidden in the most secret places, and to the uninitiated it seems truly wonderful. A practised touch can easily discern the slightest movement upon the part of the one with whom he is in contact. Even variations of the rate of respiration may give him a hint.

A very common instance of muscle-reading is a favorite parlor amusement.

A person is blindfolded while one or more hides a key. The hands of one or more persons are then placed upon the back and chest of the person blindfolded. He then begins to move and is guided to the hidden key by the pressure made upon the body.

This has been and is often now confounded with telepathy. It is astonishing how the different emotions of the body will affect unconsciously the muscular movements.

A writer has said, "We believe that for which we hope," and we impress that belief in every movement possible to the human frame.

PART II.

CHAPTER I.

INTRODUCTION AND GENERAL CONSIDERATIONS IN PART II.

In the first section of this work it has been my endeavor to make clear the phenomena of hypnotism, to enable the reader to understand it, to divest it, as has been said before, of superstition.

This present portion of our work will be devoted entirely to theoretical considerations and to the history of hypnotism, a part which I am well aware is difficult to make at once interesting and concise. Men are ever prone to theorizing, and these theories become with many persons hobbies, aye, even idols, for they bow down and worship them.

A Frenchman is quoted as saying, "My theory is true, and if the facts do not fit it, so much the worse for the facts."

Theories are good only when they help us to understand the nature of the facts. We are more apt to think the reverse, however.

Theories are very likely, if wrong, to cause

an application of the facts which is detrimental to human progress.

The soul—what a magic word! In what a widely different manner it is used by different individuals! Men have laid down their lives to save their souls. They have tortured themselves and others for the same object. The followers of Mohammed would compel the infidel dogs to believe their religion if they had to force it into their hearts at the dagger's point. The history of religious persecution of all kinds is at once the most disgusting and the saddest chapter in all the history of the world.

Thanks to our enlightened modern civilization, the rack and thumbscrew, and the burning fagots around the stake are gone, but, Phœnix-like, arising from the ashes of burned martyrs and witches the hideous monster, intolerance, rears its head once more. But this time the monster is in a different guise. It is not clothed with a sword but instead has a milder dress. Its guise is now scientific dogmatism.

The would-be scientist assumes the right by reason of his great knowledge to do the thinking for the rest of the world. The professor of chemistry, because he is an expert in this line, assumes that he is competent to judge about that of which he knows nothing.

Mathematicians calculate accurately enormous distances, consequently they assume that they, too, have the right of judging for their fellow-men about matters of which they are ignorant.

The physicist, with his atomic theory and molecular vibration, has found the key to the universe, but, alas! the key is only in his own conceit.

One thing should be said, however, in justice to all these, that men who have been trained to careful observation and logical close reasoning are better adapted to study and to pronounce judgment upon many subjects, because they have learned to think accurately and logically upon one.

It is, indeed, astonishing how few men or women possess this power of reasoning clearly and of observing carefully. Prejudice colors to a fearful extent the opinions of all classes.

To-day we are passing through an epoch in which evolution is the dominant theory. Every biological resemblance between different species, whether it be morphological or physiological, is construed into an evidence that something came from something else, the two being widely different from each other. We have such lucid terms as "protoplasmic differentiation," "embryonic resemblances," and many others that could be mentioned.

Now, that evolution has played a large part in the world's history is very apparent, and yet, when it is dogmatically assumed that it is the principle of the construction and development of all living things, it seems to me that matters are carried rather too far. Many influences have altered existing types, and hence are evolutionary, but there is much to be found out, much to be known.

Again, certain dominant psychological and ethical ideas are shaping to an undue degree the thought of mankind, and, "if the facts do not fit them, why, so much the worse for the facts." Such methods of thought must prove detrimental to scientific advancement. I would rather believe nothing than to believe an error. I do not believe that a bad creed is better than no creed at all, whether the term creed is made to apply either to scientific or religious theories, so I wish to be plainly understood; I have no theory to explain the hypnotic phenomena.

I do not know that the mind is something different from matter. The only manifestation I know of mind is through the material world. I do not know that mind is the product of matter; but I do know that without matter I cannot, with any means at the present within my power, communicate with mind. I do not know that the brain is entirely the seat of the mind. Experiments point that way, however.

Destruction or disease of a part of the brain is often, but not always, accompanied by mental deterioration. Mental deterioration does exist without discoverable disease or injury of the brain.

I recognize on every hand not only the infinity of space, but the infinite possibilities in everything in the universe. We know that planets revolve in their orbits and that they have done so for ages, and that they are millions and millions of miles apart, and that wonderful little camera, the eye, unaided by any instrument, reflects the minute image of them upon the consciousness of man. Aided by the telescope, these images are enormously enlarged. Had the telescope not existed, the worlds would have sailed in their orbits just the same, but for us they would have only existed as bright spots in the inky darkness of the night.

What man can say that there may not be yet developed means of divining the now unknowable? Forces everywhere operate around us, possibly, of whose existence we are, as yet, entirely ignorant.

Only yesterday another substance was found in the atmosphere; it is, possibly, another element. Its effects are yet unstudied, and its purpose is undetermined. Of the ultimate essence of things we are entirely ignorant.

Systems of religion and philosophy have come and have disappeared like dreams in the night. Love, kneeling, has ever wept over and kissed the dewy brow of the dying, and prayer has winged its way into the great unknown. These things are universal. I do not argue that what is universally believed must be true, but it is well worth the proving. Because all men have believed certain things does not necessarily prove them to be true. We believe that which is brought into our consciousness, or deductions drawn therefrom.

We fit imaginary states to our own ideals. We clothe the Divine with the best, and sometimes with the worst, of our own attributes. A man's God exists for him in the perfection of his own ideal. This seems to me the universal law of the conception of things.

In regard to hypnotism, our conception of it, and our theories about it, will be formed around our knowledge of its phenomena. They will be accurate or inaccurate in a direct ratio to our understanding of the results of hypnosis. Therefore, I believe at the present time, that a careful study of the phenomena will help us to ultimately understand it, and lead us to more correct results than will speculation and theorizing about the results already obtained.

The principal authors upon the subject shall be given a hearing, each in turn, and, so far as

space will permit, their own theories will be told in their own language.

Should my comments upon them seem at times severe, it is not with any disrespect that these are made, but only for the purpose of showing the utter futility of using high-sounding phrases and imagining that they explain something which they many times only mystify. To say that the phenomena of hypnotism are only imaginary is a misstatement of the case. To say that they are the result of suggestion, is simply to state that a man does something because he is told to do it. To say that they are the result of self-suggestion, auto-hypnotism, means simply to say that a man told himself to do something. To say that they are the result of animal magnetism, is to impute them to a force of whose qualities we know, at present, little or nothing.

We have no instruments for measuring this force, no chemical tests for analyzing it, and it exists, if it exists at all, as a phenomenon, plus a preconceived notion of it.

It does not resemble the magnetism of the electro-magnet. That one mind affects another in many ways no one will deny. Analyze it if you can, and if you analyze it simply by observation you will at once be convinced that it is composed of, not one, but of many factors. So such an analysis of the hypnotic state has led

me to believe that it is composed of many diverse and, at times, opposite conditions.

After stating the theories advanced by the leading authors, I shall give an analysis of the mental factors which seem to me to compose it, but shall make no attempt to say what these mental factors emanate from, or of what they consist. Therefore I now confess my ignorance of the essence of the mind, as did Dr. Foster in the beginning of one of his editions of his famous "System of Physiology."

He says in effect that we know the products formed by the death of the protoplasmic cell. We know that during life it has the power of assimilating and utilizing elements different from itself, and of eliminating the waste products of its metabolism, but of that thing we call vitality, in other words how the protoplasmic cell does this, we do not know. So we know that the hypnotic state and similar phenomena exist. We are familiar with the faculties and qualities of the mind only by their manifestations, and we know that they are indisseverably linked with the nervous system, and that is all we do know on this subject. Hence I should advise every one to study hypnotism and the allied psychical phenomena, and form no conclusion until he has finished his labors.

CHAPTER II.

THEORIES OF HYPNOTISM.—THE FOLLOWING ARE CONDENSATIONS OF SOME OF THE PRINCIPAL CURRENT IDEAS OF HYPNOTISM.

THERE are three main theories advanced concerning the nature of the hypnotic state. They are the theories of (1) Animal Magnetism, (2) of Neurosis, (3) of Suggestion.

The believers in the Animal Magnetism theory, who are comparatively few among scientists, hold that there is an emanation directly from the operator to the subject, which will, when focussed on the subject, transform him into a mere automaton, subject to the will of the operator.

The theory of Neurosis is, in a few words, somewhat as follows. The state of hypnosis is a certain pathological condition into which some individuals, those only who have the necessary predisposition, are easily placed by anything which appeals strongly to the emotions. In this state special physical agents can produce special symptoms, without their being

mentally expected by the subject. This condition is said by Prof. Charcot and his colleagues of the Salpêtrière Hospital to be rarely found in typical form. It is called by them "le grand hypnotisme," and is said to accompany the disease hystero-epilepsy. I have seen in this country a number of such cases. I shall report one in detail.

In the spring of 1890 a woman, twenty-three years of age, consulted me. She had been for some time a constant attendant at a gathering of spiritualists called a "circle." Whenever the members of the circle joined hands the girl would pass into a state of catalepsy. Every muscle in her body would be rigid, her breathing would be scarcely perceptible, and she would grow very pale. This condition of things would last two or three hours; when it finally passed off she appeared languid for a number of hours after. One day in my office I gave her a piece of polished metal and told her that it was powerfully magnetized. She threw it across the room and had a hystero-epileptic fit of great violence. So susceptible was this girl to suggestion that she would have violent tremors whenever she believed she was in contact with any one who possessed magnetic power. She would have a convulsion if a piece of paper were given her, if she were told first that it was magnetized. There are a great many

such cases in New England. Perhaps just as many in the rest of the country.

The cataleptic trance is a stage of this kind of hypnotism which may be induced by the patient's suddenly hearing a loud noise or seeing a bright light. The limbs and body obey every movement communicated to them and retain the position in which they are placed. The eyes are fixed, and there is no sensibility to pain.

The lethargic condition may be induced from the cataleptic by forcibly closing the eyelids. This state is marked by apparent unconsciousness and by complete relaxation of the muscles, except when they are petrissaged; or contractions may be produced in them by pressure upon some of the large nerve-trunks. When the muscles are thus excited tonic contractions take place in them. This symptom is called by Charcot, neuro-muscular excitability.

A lethargic state has been previously described, and may be induced by any of the methods of hypnotizing before mentioned.

Prof. James says that a subject may, by friction on the top of the head, be brought from either the lethargic or cataleptic state into the somnambulic condition, and that he is then active and susceptible to any suggestion the operator may make.

This state may be induced primarily. In

other words, the cataleptic or lethargic state may be produced at will by the operator if the suggestion be only properly directed.

In the somnambulic condition the above-mentioned manipulations of the muscles do not cause the clearly-defined contractions noticed in the lethargic, but whole regions of the body tend to become rigid. Sometimes slight stimulation of the skin, either by touching it or by blowing upon it, results in general tetanic convulsions. Prof. Charcot terms this cutaneo-muscular hyper-excitability.

Among many other symptoms accompanying "le grand hypnotisme," the following are some of the most interesting.

If the eyes of a patient in lethargy are opened he becomes cataleptic. Opening one eye causes the corresponding half of the body to become cataleptic, the other half remaining lethargic. (The term lethargy is used to denote complete muscular relaxation.) (Charcot.)

The conditions of one side of the body may be transferred to the opposite side by the approach of a magnet to the skin or by the contact with certain metals. (Luys.)

Patients may be made to repeat automatically every word which they hear, by pressing upon the lower cervical vertebræ or upon the epigastrium. Aphasia is produced in these subjects of "le grand hypnotisme," by rub-

bing the head, over the region of the speech-centre. (Buchanan.)

"The theory of hypnotism denies that there is any special hypnotic state worthy of the name of trance or neurosis." (James, Liébault, Bernheim.)

The various states of catalepsy, lethargy, etc., are due to mental susceptibility to outward suggestion. This susceptibility is found more or less in every one. It is generally believed by most scientists that the phenomena noticed in the subjects experimented upon in the Salpêtrière Hospital were produced by training and expectation. Those things which the first patients did were supposed by the experimenters to be typical. Subsequent patients, learning what was expected of them, followed in their lead. This is demonstrated by the fact that these three typical stages and their accompanying symptoms have occurred spontaneously, so far as known, only at the Salpêtrière. The appearance of the eyes, the flushing of the face, the quickening of the respiration, etc., are held to be not caused by the passage into the state of hypnosis, but to be due to the strain on the eyes, in consequence of looking steadfastly at a small object. The patients at Nancy who are hypnotized by simple command, such as by telling them to go to sleep and close their eyes, do not exhibit any of these symptoms.

It is generally held by those who believe in the suggestion theory that the various phenomena, such as echolalia, aphasia, imitation, etc., are the result of imitation aided by unconscious suggestion on the part of the operator. Indeed, the more enthusiastic adherents of the suggestion theory claim that there is no such thing as a trance-like state in which the patient is, for the time being, deprived of his will and is subject, as if he were a puppet, to outward suggestion. The trance is held to be only the result of a suggestion, and is not a necessary preliminary of the other states.

At present the suggestion theory is more generally supported than is the neurosis theory advanced by Charcot and his followers at Salpêtrière. Still, it has by no means been proved that the latter are wrong in their assumption that there is a peculiar physiological condition commonly known as the hypnotic trance. So far as we know at present, the indications are that the results of suggestion are very unimportant unless the subject is in this trance-like state. Prof. James says that it is probable that we all pass through this state whenever we fall asleep (Drs. Moll, Bernheim, Lombroso, and other European observers are in accord with him). They believe that the usual relation between operator and subject may be described by saying that the former keeps the latter suspended be-

tween sleeping and waking by talking to him enough to keep his slumber from growing profound, and yet not in such a way as to awaken him. He, as do also Liégeois, Forel, Liébault, Charcot, and Binet, considers that hypnotism and natural sleep have many points in common.

Prof. James says that fixing the eyes and relaxing the muscles of the body produce the hypnotic state just as they facilitate the advent of sleep. He holds the suggestion theory to be correct, provided the trance state is granted as its pre-requisite.

I have made a careful analysis of the symptoms and sensations experienced by persons passing into, during, and while emerging from the hypnotic state. My own sensations have been stated elsewhere. From the sensations experienced by myself and those described to me by a number of persons, I think that the half-asleep conception of the hypnotic state formed by the gentlemen just quoted is wholly erroneous. I shall analyze these sensations a little later, and give in detail my reasons for venturing to differ from such eminent and learned minds.

Symptoms of the Trance.

We will now consider a few of the most interesting of the symptoms commonly observed as accompanying the so-called hypnotic trance.

Loss of memory, or amnesia, accompanies the deeper stages of the hypnotic condition. Subjects who have been through a number of performances and have exhibited the liveliest emotion, upon coming out of the hypnotic state, remember nothing of what they have been doing. M. Delboef, reasoning that the probable cause of the forgetfulness was the disconnection between the trains of ideas while in the trance state and while out of it, found that if the patient were awakened during the performance of some act while still in the hypnotic condition, he remembered what had transpired during the trance. This is not by any means always the case, any more than that people always remember dreams when suddenly awakened from sleep.

Dr. Bernheim, endorsing as he does the suggestion theory for the explanation of the hypnotic phenomena, considers the cataleptic condition to be the result of suggestion. He states that although at first sight the cataleptic condition seems to be an abnormality, on reflection we see that in our every-day waking life, also, many acts are performed automatically and without any conscious act of will ; for example, our circulation, respiration, or the movements of the alimentary canal. Speaking of the spinal reflex action, he says that an impression transmitted along a sensory nerve may

be reflected through the gray horns of the cord, without traversing the brain, and that involuntary motion follows the unperceived impression or sensation. As an illustration of this he cites the case of a decapitated frog which, when an irritant, such as acetic acid, is applied to the skin, raises his leg to scratch the irritated place. But, owing to the fact that the frog is a cold-blooded animal, and that its cerebrum is less highly developed when compared with that of the higher orders of animals, the spinal cord and other nervous centres may exercise functions which are assigned in mammalia to the brain. Hence Dr. Bernheim's analogy does not seem to be very striking. Neither is his instance of a man, who, while absorbed in meditation, unconsciously and without subsequent memory, brushes away a troublesome fly, analogous to the state of hypnosis, as I shall show.

It is stated that the brain may intervene to give the primary impulse, that the act continues even when thought and will are otherwise occupied, exclusively by means of spinal automatism. The example of a man's walking with his mind at the same time absorbed in other subjects, or the instance of an artist's playing a long composition upon the piano, and in the course of it allowing his mind to wander till he no longer thinks of the music, are good illustrations of the point ; nevertheless, I do not

concede that these cases are similar to that of a man in the hypnotic condition. Continuing the illustration of the pianist, Dr. Bernheim says, "Moreover, that which the mind has lost track of, spinal automatism may resume. The artist no longer remembers all the phrases of the musical composition. His recollection has become all defective; he is incapable of playing the piece through in consequence of his mental confusion. The spinal memory, if I may use the expression, supplements the cerebral memory. The fingers frequently recover the difficult arrangements of stops and movements on the key-board, and accomplish them precisely, even when these movements, assimilated, so to speak, by the spinal cord, have become a mechanical operation, owing to their frequent repetition."

I think that many physiologists would disagree with Dr. Bernheim in assigning to the spinal cord the centre of such automatic movement.

He also seems to forget that many eminent authorities claim that a large number, if not all, of the movements executed by a pianist are presided over and directed and co-ordinated as well, by the cerebellum. A patient under my care suffered from a tumor of the cerebellum. He was a professional pianist, and as the tumor developed he lost his ability to co-ordinate the

movements of his hands upon the piano, but could read music as well as ever. The diagnosis of cerebellar tumor was verified at a necropsy.

When the controlling power of the brain is removed and only the spinal centres are left intact, we find that stimulation of the periphery does not excite intelligent movements but spasms instead.

There may be instinctive automatic activity of the nervous centres. As examples of this may be cited the different changes in facial expression accompanying our various emotions.

M. Despine in his work, "Etude scientifique sur le somnambulisme," mentions affectation as one of the results of this automatism. He says, "It is thought that the phenomena which constitute it are voluntary and studied. This is a mistake. A person is affected in manner in consequence of an exaggerated facility for following what happens in thought, which the automatic nervous organs possess. The voice takes the most varied inflections, according to the slightest changes in the feelings."

Facial expression does not seem to me to bear any relation whatever to automatism. It is largely under control of the will, as every good actor will testify. It is no more automatic than is the act of raising the hand to the mouth when one is eating. In the case of the patient

previously mentioned, who had the tumor of the cerebellum, co-ordination was so much impaired that the man had to be fed, because he could not accurately carry his fork from his plate to his mouth.

Dr. Bernheim cites a case of a boy, who, when his eyes were closed at command, would immediately become unconscious of external events. He was hypnotized, then, simply by closing his eyes, the hypnotization taking place instantaneously. The boy in this state would converse volubly about himself, and immediately thereafter, when his eyes were opened, he retained no memory of what he had said. We have Dr. Bernheim's word for the fact that the boy had no memory of his conversation while in the hypnotic state. He does not state how he proved this. I, for one, cannot see how Dr. Bernheim, or any one else for that matter, could prove that the boy had no memory of what he had said while hypnotized. From the narration of the case I infer that the boy would pass instantly into and out of the hypnotic state at command. I think such statements are misleading.

The theory of suggestion is, briefly, that a susceptible person will sleep when he is told to do so, and that his sleep will be of a particular kind. In this sleep the subject will do what he is told and will also awake by suggestion.

While acting under the influence of this potent factor even his faculties, his senses, special and general, will obey any command given by the suggestor, if I may be allowed the word in this place.

Theory of Animal Magnetism.

Those believing in this theory, of which Mesmer was the most prominent, hold, as has been previously mentioned, that the hypnotizer exercises a force, independently of suggestion, over the subject. They believe one part of the body may be charged separately, or that the whole body may be filled with magnetism. They recognize the power of suggestion, but they do not believe it to be the principal factor in the production of the hypnotic state. There has been much bitter dispute, especially in Europe, between the suggestionists and the followers of the doctrine of animal magnetism. The phenomena produced by the so-called mesmerists certainly differ from those which are seen when a person is simply hypnotized by suggestion (by telling him to close his eyes and sleep).

The Neurosis Theory.

Now the lay reader must not be frightened by this formidable-looking word. Its meaning is very simple. A neurosis is any affection of the

nervous centres occurring without any material agent producing it, without inflammation or any other constant structural change which can be detected in the nervous centres.

As will be seen from the definition, any abnormal manifestation of the nervous system of whose cause we know practically nothing, is, for convenience, termed a neurosis. If a man has a certain habit or trick it is termed a neurosis or a neuropathic habit. One man of my acquaintance, who is a professor in a college, always begins his lecture by first sneezing and then pulling at his nose.

Many forms of tremor are called neurosis.

Now to say that hypnotism is the result of a neurosis, simply means that a person's nervous system is susceptible to this condition, which, by M. Charcot and his followers, is regarded as abnormal.

Dr. Moll considers that, in the light of our present knowledge of hypnotism, the most we can accomplish towards an explanation of it is to compare its phenomena with those observed in waking life. By way of explanation, let us suppose that we are trying to explain a hypnotic negative hallucination of sight. We must compare it with a corresponding phenomenon in waking life. By so doing we will notice that in the hypnotic state the patient fails to perceive any object which the operator

tells him he cannot see, while in waking life we should be all the more certain to see an object when told that it is not there, from the fact of our attention being directed toward it. In explanation of this point of difference Dr. Moll, following Wundt, assumes the existence of a so-called dream consciousness in the hypnotic state.

It is believed by Dr. Moll that by means of this method of analogy, many phenomena, both hypnotic and post-hypnotic, can be explained, and he advises self-observation as a most valuable aid to investigation. He considers that a great number of different states are included under the head of hypnosis, and takes up the discussion of the various hypnotic phenomena in the following order:

(1) The phenomena of suggestion as regards voluntary movements; (2) positive and negative delusions of the senses; (3) rapport; (4) the phenomena of memory; (5) post-hypnotic suggestion.

Two rules are emphasized by Dr. Moll, as of great importance in enabling us to clearly comprehend the various symptoms of the hypnotic condition. These rules are (1) that men have a certain proneness to allow themselves to be influenced by others through their ideas, and, in particular, to believe much without making conscious logical deductions. Dr. Moll is evi-

dently much confused upon this point. Ordinary credulity does not resemble the hypnotic state. Inform a man, no matter how credulous he may be, that he cannot see the knob on the door in front of him, and the chances are that he will laugh at you. Let his attention be focussed, and let him believe some occult power is working on him, and the result may be quite different. I have known a number of very credulous people who were hypnotized only with great difficulty, and some could not be hypnotized at all, although they believed firmly when the attempt was made that they could be. (2) A psychological or physiological effect tends to appear in a man if he is expecting it. In regard to the first of these two points, both Bernheim and Bentivegini are in accord with Dr. Moll in saying that every one is more or less influenced by ideas. Among other examples, as an illustration of the second point, Dr. Moll cites a case as follows: "A judicial disinterment was to be made; the grave was opened and the coffin raised. The official who was present said that he already smelt putrefaction, but when the coffin was opened it was found to be empty. Here expectation caused a distinct sense perception."

It is possible in this case that the officer mistook the scent of the earth or some other foul smell for the smell of putrefaction which was

supposed to come from the dead body. I do not doubt, however, that many times such events occur in the way described by Dr. Moll.

Can a person be hypnotized against his will? Dr. Moll expresses his views on this subject as follows:

"The question whether hypnosis can be induced against the wish of the subject is by no means unimportant. We must distinguish here whether the subject complies with the prescribed conditions or whether he does not. If he does; if, for example, he sufficiently concentrates his attention; if he gazes at some object with the necessary attention, then hypnosis may be produced at the first attempt, even against the wish of the person experimented upon. However, it must be remembered that a person who does not allow himself to be hypnotized will hardly place himself in the necessary mental state. He will not generally fulfil the conditions; he will fix his eyes, but will allow his attention to wander. However, I think I may assert that certain persons accustomed to obedience can be hypnotized at the first attempt even against their will, and without the ordinary necessary straining of the attention if only they are told that hypnosis will occur.

"The conditions for hypnosis may occur occasionally by chance, without the subject being conscious of them. (Max Dessoir.)

"There is an interesting case of a girl who had often been hypnotized by loud noises, and who went to a drawer to appropriate some photographs from it. The casual beating of a gong threw her into a cataleptic state, so that she stood motionless in the act of carrying out her theft, and was discovered.

Hack Tuke remarks that it is a pity all thieves cannot be taken as easily."

Going on to discuss the single phenomena of hypnosis, the first symptom considered is, the functional disturbances of voluntary movement. Dr. Moll thinks that the explanation of this is to be found in the principle that expectation may bring on functional abnormalities, but he says that in order that this should be understood thoroughly, the hypnosis should be induced by slow degrees, as in this case the motor disturbances are plainer.

If we can direct the subject's whole attention to the belief that such an effect as before mentioned—that his arm will be paralyzed, for instance—will take place, that effect will gradually occur. Such a result having been once produced the subject's will-power and power of resistance are considerably weakened, because he is much more inclined than at first to believe the hypnotizer's assertions.

This is generally the first step in the process of hypnosis. The method pursued at the school of Nancy is to convince the subject that his eyes are closing by directing his attention to that effect as strongly as possible. However, it is not necessary that we begin with the eyes. According to Max Dessoir, any member of the body will answer as well.

Sense Delusions.

Dr. Moll holds that we are subject to positive sense delusions in the waking state as well as in the hypnotic state, and gives as an illustration an example of Max Dessoir's. "I say to some one who is quite awake, 'A rat is running behind you.' The man can assure himself at once by turning around that there is no rat, but according to experience he will have a mental image of a rat for a moment, because I spoke of it, *i. e.*, there is already a trace of hallucination."

Again I do not agree with this statement. There is a great difference between a memory and a hallucination. Tell a man that a rat is behind him. Suppose the image of a rat is the first thing that enters his consciousness. Unless he thought he saw the rat upon the floor there would be no hallucination, but simply an image called up by the association of ideas.

There is a difference between sense delusions in the waking state and in the hypnotic state. A moment's calm reflection is sufficient to dispel the former, while the latter increase in strength and persistence until they are as real as if they were really caused by sense perceptions.

The previously mentioned dream consciousness differs in two respects (according to Wundt)

from that of our waking life. These are, as Dr. Moll sets them forth, as follows:

"In the first place, the remembered ideas have a hallucinatory character, *i. e.*, we try in our dreams to objectify the images of memory, we do not recognize that they are images of memory as we do in waking life, but believe that we see, feel, etc., the real object to which they correspond. In the same way external impressions do not produce normal perceptions, but illusions. In the second place, in dreams the faculty of perception is changed, *i. e.*, the power of judging the experiences of which we are conscious is essentially altered.

"It is just this peculiarity of the dream consciousness (mentioned by Wundt) which is found in the consciousness of such hypnotic subjects as are accessible to suggested sense delusions."

It would be exceedingly difficult to prove just what the experiences of a hypnotized subject are while in this so-called state of dream consciousness. A subject while hypnotized will answer you intelligently. Ask him how he feels, and, if he is imaginative, he will give you a vivid picture of his sensations, and, if I may judge of the sensations of dreams by my own experience, they do not in any way resemble the fantastic stories which are told by hypnotized subjects in answer to questions.

Other hypnotized subjects who have not vivid imagination will simply give you direct answers to the questions propounded to them. When they are brought out of this condition their descriptions vary as much as they did while they were hypnotized. Some will tell you they remember nothing, others a few things, while others again remember everything that has occurred.

Hence I fail to see the resemblance between the consciousness during ordinary dreams and that produced by artificial hypnosis.

Dr. Moll next discusses the subject of *rapport*. His definition of it, which accords with that given by Noizet, Bertrand, Liébault, Bernheim, Forel and others, is as follows:

"Rapport is a state of sleep in which the attention of the subject is fixed exclusively upon the hypnotizer so that the idea of him is constantly present in the subject's memory."

I take exception again to the term sleep, since I know no condition of natural sleep in which the sleeper will obey without question a number of suggestions made to him. In natural sleep a certain number of hallucinations may be induced by stimulation of the senses, but these hallucinations will not follow any definite type, as will the hallucinations which are the products of suggestion in the hypnotized subject.

Bertrand makes the comparison of a mother falling asleep over her child's cradle. She hears the least sound the child makes, but no other. Then Bertrand goes on to say that the subject has fallen asleep with the thought of the hypnotizer in his mind, and hears only what he says, as in the case of the mother and child.

Dr. Moll, taking up the consideration of the negative hallucinations, calls attention to two points. "Firstly, that the subject does not see certain objects, or hear certain noises, etc.; secondly and more particularly, that the objects he does not see are just those he is forbidden by the hypnotizer to see." He also brings up again the point previously mentioned, that in the waking state the man is the more sure to see, from the fact of his attention being called to it, that which he is told he cannot see, while in hypnosis he fails to see that which he is forbidden by the hypnotizer to see.

Dr. Moll regards this process in the hypnotic state as a diversion of the attention, like that in the waking man who fails to perceive things which stimulate his organs of sense. He says further that this is shown in particular by those hallucinations which vanish the moment his attention is drawn to the hallucinatory object. That we can see clearly in such cases that the negative hallucination was caused by

the diversion of the attention from the object, and that the direction of the attention to it was a counter-suggestion.

Binet and Féré claim that another factor must be considered in addition to the diversion of the attention, viz., that before the diversion can be attained the subject must be convinced that the object he is forbidden to see is not there.

Dr. Moll considers, however, that in addition to the two factors previously mentioned, the diversion of attention and the establishment of the conviction of the subject, there is needed to explain the negative hallucinations a complete changed state of consciousness, that is, the dream consciousness. He says in summing up, "There are three factors for the production of negative hallucinations ; firstly, dream consciousness ; secondly, the conviction established in the mind of the patient that the object is not there, and, thirdly, the diversion of the attention which results from this.

The explanation given for analgesia in the hypnotic subject is that it is induced by suggestion, reasoning from the fact that expected pain is much more keenly felt than that which comes unexpectedly.

Again I do not accord with these gentlemen. I believe the analgesia (insensibility to pain) to be the result of a concentration of the conscious-

ness in another direction, which I illustrated in the case of the man who injured his leg in the railway accident without at the time being aware of the fact.

The derangement of memory sometimes following the hypnotic condition is the next symptom discussed by Dr. Moll. He claims that there is an analogy between the occasional forgetting of acts performed consciously in our waking life and the failure to remember, after the hypnotic state, those things which happened in hypnosis. But as this analogy is not sufficient to explain this derangement of memory, he assumes the existence of a double consciousness, which he explains as follows.

"If we think of the life of such a being as divided into several periods a, b, c, d, e, f, g, in the periods a, c, e, g, only the events of those periods will be remembered, so that in the period c, he will remember only what happened in a, and in the period e, what happened in a and c. On the other hand, in the periods b, d, f, both what has happened in them and in a, c, e, will be remembered. This idea of double consciousness is supported by Max Dessoir and Pierre Janet. They hold that human personality is a unity merely to our consciousness, and that it consists really of at least two clearly distinguishable personalities, each held together by its own chain of memories, arguing

from the fact that one performs many mental acts unconsciously. They cite as an example the experiment made by a Mr. Barkworth, who, it is claimed, could add up a long column of figures, at the same time carrying on an animated conversation. Dessoir considers that consciousness and memory are two elements of personality, and that in the case of Barkworth just mentioned there may be distinguished the elements of a second personality. That the mental processes which take place consciously to the man are called the primary consciousness, while those which take place mechanically are called the secondary consciousness.

It is indeed a wonderful fact that European investigators should have reached the same conclusions independently which were arrived at centuries ago by the leading thinkers of Buddhism. This idea of a dual, or triple, or a quadruple consciousness is in no way new. We find it in early writings dating back many centuries before the birth of Christ. An educated Chinese gentleman made for me a translation from a Chinese work, the title of which is too intricate to be mentioned here, which taught the fact that there are many separate states of consciousness. According to this gentleman's translation, a doctrine something like the following was advocated: "Man possesses two great brains, and two small brains. One great

brain may go to sleep while the other great brain remains awake, and it makes the man do strange things which he, when the other brain awakes, does not know." This is wonderfully like the idea which is held by our modern physiologists. namely, that one portion of the cortical cells of the brain may act independently of the others, and thus give rise to a separate conscious state. We find the modern teachers of Theosophy expounding similar ideas of multiplicity of conscious states. I do not know that they attribute them, however, to the independent action of certain parts of the brain.

In the case just above mentioned the two consciousnesses exist together. It is stated, however, that they may, under certain circumstances, follow one another. As a demonstration an example of Dessoir's is quoted in which a person took up a dream on the second night where he had left off on the first.

Dr. Moll says further: "Applying this theory of double consciousness to the state of hypnosis, Dessoir thinks that hypnosis simply exhibits the hidden half of our mental life; the part which is called secondary consciousness and which can occasionally be observed in ordinary life, or more plainly in pathological states.

Dr. Moll, in leaving this subject, while he concedes that Dessoir's explanations are valuable, believes that he includes too much in his idea

of double Ego, and states that he does not conceive the double consciousness on the same plan as Dessoir.

Post-hypnotic suggestions are discussed at some length by Dr. Moll. He considers that in a certain sense they can be explained by analogy, and supposes the following case :

"I give a letter to X., who has called on me, and ask him to post it on his way home, if he passes a letter-box. This he does.

"I now give exactly the same commission to Y., who is in a hypnotic state without subsequent loss of memory. He also fulfils the request."

In this illustration Dr. Moll does not consider that the fact that Y. posted the letter without conscious act of will, distinguishes his case from that of X., because in this case it is assumed that he also posted the letter mechanically, talking in the meantime to an acquaintance, and not remembering afterwards whether he posted it or not ; to assure himself he feels in his pocket for the letter. Now, Dr. Moll says very truly that it would be more striking if X. should perform some action against his will, just as post-hypnotic suggestions are sometimes carried out.

He claims that an analogy to such a post-hypnotic suggestion can be very easily found, and gives the following as an instance.

"We will suppose that A. has lost a dear relation. A. is, in consequence, saddened and depressed, and cannot refrain from tears. Months pass and he grows calm; but when the anniversary of the death arrives he falls into the same state of mental excitement and tears which he cannot conquer. The vivid idea has been enough to throw him, against his will, into a certain state." He also gives, as another analogy, the case of a person who stammers. At home he does not stammer, but a stranger comes in and he commences, against his will, to stammer, because he expected to do so.

Arguing from the above, Dr. Moll concludes that such a result is brought about by vivid expectation, and remarks that it is therefore not astonishing that a post-hypnotic suggestion should succeed against the subject's will.

I cannot see the analogy between the two conditions. An individual stammers in the presence of a stranger from what we call nervous erethism, in other words, he is over-excitable; or, on the other hand, his timidity gets the better of his self-control. Now a man obeys a post-hypnotic suggestion in quite a different manner. It affects him as an imperative impulse. Let me illustrate. I told B., while in the hypnotic state, that six hours later he would go to his garden, gather a squash, and send it to his neighbor, Mr. C. The man was then aroused,

and Mr. C. was told to expect the squash and to notify me if it arrived. As Mr. C. was a lawyer, I requested him to cross-question Mr. B., if he brought the squash, and to ascertain for me, if possible, what form the suggestion took in the mind of Mr. B.

Promptly at the hour named this gentleman arrived at Mr. C.'s house with the squash. Mr. C., after praising the squash, said, "What made you bring it to me?" The man replied, "I saw your little boy in my garden looking at my squashes, and I thought he might like one of them."

Mr. C. "But I have the same kind of squashes and the same sizes in my garden that you have in yours. Why should my child want one of yours?" "Oh, I do not know," the man replied, "perhaps it would seem nicer coming from some other house." Then he added, "Any way, I was seized with the idea, which was to me irresistible, that you would like one of my squashes, and here it is."

Mr. C. "This is very curious. When did you get that idea?"

Mr. B. "It has been in my mind several times during the afternoon, and I could not get rid of it."

Dr. Moll also states that post-hypnotic suggestions carried out against the will have a great likeness to many instinctive movements,

and cites an example of the latter from Wundt, viz., the raising of the hand to ward off danger.

In considering post-hypnotic suggestions that are carried out when there is loss of memory after waking, Dr. Moll returns to the case of waking life where X. was asked to post a letter. He believes that although X. did not keep the request continually in his consciousness it was only apparently forgotten and not really so, for he would not have posted the letter if he had not really remembered to do so. Likewise, in hypnotic suggestion, the suggestion really remains in the memory and the unconsciousness is only apparent. Is this not true of everything we remember during our whole lives? If a man wishes to go aboard a train at a definite hour he does not think constantly that he will take the train, we will say at 4 P. M., but attends to his affairs until train time.

Again, Dr. Moll says: "All post-hypnotic suggestions are merely apparently forgotten between waking and fulfilment." I omit his proof of this for want of space.

His explanation for post-hypnotic sense-delusions occurring in a new hypnosis is, briefly, as follows: Since the loss of memory following the first hypnosis is only apparent, the idea remains in the secondary consciousness. Consequently at an appointed time the suggested idea transforms itself into a sense-delusion in

a fresh hypnosis, which fresh hypnosis comes on through association when the idea reappears.

The above explanation Dr. Moll does not think will apply when the post-hypnotic sense-delusion appears without a new hypnosis. His investigations have led him to the following conclusions: That these post-hypnotic sense-delusions appearing without a new hypnosis are analogous to certain hallucinations of sight, hearing, etc., which some persons have without being hypnotized. That these hallucinations result from a particular mental state which in some cases may be called a state of expectation, and is even perhaps identical with it.

Dr. Moll says, "Susceptibility to suggestion is the chief phenomenon of hypnosis. We have seen how easily a hypnotic suggestion is carried out. The externally suggested idea of a movement induces the movement, the idea of an object causes a corresponding sense hallucination."

This is only true of a certain number of hypnotized subjects, perhaps the larger number of them. The condition of hypnosis frequently merges into states in which the patient will not obey suggestion. Notably, one of these is hystero-epilepsy. Hysterical sleep is another. Hysterical delirium also may here be mentioned. I have seen a person, after obeying suggestion quietly for a while, suddenly begin to shout

and talk violently and absolutely refuse to obey any further command given him by the operator.

The apparently contradictory statement is made by Dr. Moll, that however strange and paradoxical the phenomena of hypnosis may, at first sight, appear to us, we may be sure that there is no absolute difference between hypnotic and non-hypnotic states.

Again he says, "We may then consider every hypnosis as a state in which the normal course of the ideas is inhibited. It matters not whether the ideas have to do with movements, or with sense impressions."

It is generally admitted by all hypnotists that voluntary attention is the pre-requisite factor for inducing the hypnotic state. The subject while hypnotized will focus his attention upon any object that the hypnotizer suggests.

Ed. von Hartmann classifies attention as spontaneous and reflex. The following definition of the two is given by Dr. Moll. "When by an act of will we choose one of several ideas and fix our attention upon it, this is spontaneous attention; but when one idea among several gets the upper hand through its intensity, or for some other reason, and this represses other ideas and draws exclusive attention upon it, this is reflex attention."

He considers that the spontaneous attention,

that is, the ability of the subject to voluntarily prefer one idea to another, is interfered with in the hypnotic state. That the reflex attention remains undisturbed, and that it is through this that the suggested idea, the choice of which has not, however, been left to the subject, comes into prominence.

Durand de Gros, Liébault, Richet, Beard, Schneider, Wundt, and Bentivegni take the same view.

Speaking of the further investigation of numerical psychology, as that branch of psychology which considers the calculating of the time of reaction, etc., is called, Dr. Moll says that special attention should be given to the measurements of the time of reaction. He follows Wundt in his definition of the time of reaction, and defines it as the time that elapses between the moment of making a sense impression, and the moment when the impression manifests itself by some external sign. The experiments of Marie and Azoulay in measuring the time of reaction of suggested sense delusions in hypnosis show it to be longer than when the object was a real one.

Among other experimenters who have measured the time of reaction for real objects, Stanley Hall found it to be before hypnosis, .328 seconds; during hypnosis, .193 seconds; half an hour after, .348 seconds. In this case the time

is considerably shortened during hypnosis. Prof. James did not obtain like results. His average figures on one occasion are as follows: Before hypnosis,.282 seconds; during hypnosis, .546 seconds; after hypnosis, .166 seconds. There are, however, many contradictions in James' results.

Speaking of the appearance in ordinary life of phenomena resembling those accompanying hypnosis, Dr. Moll says, "I will therefore here express my conviction that all good observers may find 'hypnotic phenomena' in daily life. They result spontaneously from a chance occurrence of the necessary conditions. There are further analogies to hypnosis which can easily be developed out of the preceding discussions."

Heidenhain, among others, has attempted a physiological explanation. His theory is given by Dr. Moll as follows: "Heidenhain supposes that the cause of the hypnotic state is an inhibition of the action of the ganglion cells of the cerebral cortex, induced by continuous weak stimulation of certain nerves. Heidenhain thinks this inhibition is analogous to reflex paralyses, as in these also the functions of the ganglion cells are impaired by peripheral stimuli."

Among those who do not attempt to localize the hypnotic subject's loss of will may be

mentioned Dr. J. Hughes Bennett. He, recognizing that it is not the genesis of separate ideas which is prevented in hypnosis, but that it is the voluntary synthesis of them, considered, since the ideas originated in the ganglion cells, that there was a functional disturbance during hypnosis in the nerve fibres which connect these cells.

Jendrassik looks at the matter in much the same way.

The following authors attribute the hypnotic phenomena to a change in the circulation of blood in the brain: Braid, Carpenter, Tuke and Rumpf.

Heidenhain, who at first supported this theory, afterward abandoned it for the following reasons: 1. Investigations with the ophthalmoscope discovered no alterations in the retinal vessels. 2. He found that hypnosis would appear in spite of the inhalation of nitrite of amyl, which causes congestion of the brain (hyperæmia).

Dr. Moll says that even when there is a change in the circulation of the blood in the brain, it is just as much a mistake to say that the changed circulation causes the changed functions as it would be to say that because a muscle needs more blood when it is at work, it works more when more blood flows to it. He also says that if we were to take the vaso-motor

disturbances as proved, it is by no means proved whether they are the cause or the effect of hypnosis.

The opposite view is taken by Cappie. His theory is that the increased activity of the motor centres in hypnosis draws too much blood to them, thereby causing anæmia of the other portions of the brain which are necessary to consciousness. Cappie's theory is based on the principle put forward by Brown-Sequard, viz., that hypnotism is the sum of dynamo-genetic and inhibitory acts, *i. e.*, that the increased action of certain parts of the brain (dynamo-genetic act) causes decreased action of others (inhibitory act).

Finally, in closing, Dr. Moll mentions the theory of Preyer, which is as follows :

" An activity of one hemisphere of the brain results in hypnosis ; fixed attention causes a rapid accumulation of waste tissues in parts of the brain which are active, and by this a quick local consumption of the oxygen of the blood is caused. In consequence of this, favored by the failure of the ordinary change of the stimulus of the nerves of sense, there is a partial loss of the activity of the cerebral cortex. The partial loss of activity of one region would explain the increase of activity of the other, because the inhibition would disappear."

Mr. Hart illustrates the suggestion theory as follows :

"These had convinced me, after the employment of the rigid test experiments and methods of control, that the familiar and well-known phenomena of the hypnotic condition are due to purely subjective conditions ; that there is no fluid of any sort, and no influence of any sort, tangible or intangible, which passes in these cases from the operator to the subject, except a suggestion by word of mouth or visible indications ; and that it is quite sufficient that the subject should have the belief that will is being exercised in order that the acts should be performed and the conditions induced which are supposed to be the result of a transferred influence or an unexpressed will."

My own conceptions of the conditions which result in the production of the hypnotic state are as follows :

As will be seen from what has been written, the three conceptions of the hypnotic state fall short of explaining the phenomena occurring during hypnosis and post-hypnotic phenomena. Personally, I believe there is such a thing as animal magnetism. I object to the word "magnetism," but know of no better. I believe that hypnotism is more easily induced in persons who are predisposed, but I am not sure as to what constitutes the predisposition,

therefore I accept in a measure the so-called neurosis theory.

I believe that suggestion also plays a very important part in the production of both the hypnotic state and in its subsequent phenomena.

Drs. Moll, Liébault, Bernheim, and many others have studied carefully the analogies between the various hypnotic states and their phenomena, and many of the states occurring during natural sleep. One writer ingeniously says that the hypnotized person is held by suggestion in the intermediate state between sleeping and waking.

Many writers divide the hypnotic stages to suit their own theories. The best-known classification is that of Charcot, who supposes three stages—the cataleptic, the lethargic, and the somnambulic. I shall go into more details as to these later, but will remark here that this classification has no universal value ; Charcot himself does not maintain that it has. In my opinion the classification made by Gurney, containing two stages, alert and deep, is accurate for only a few cases.

I acknowledge the analogies between the various stages of hypnotism and natural sleep, just as I recognize the structural resemblances between man and ape, but I do not consider that a man and an ape are necessarily iden-

tical for that reason. They are probably related.

In order to thoroughly comprehend the hypnotic state it will be necessary to study it analytically and synthetically.

The analytical method is very disappointing. The synthetical method simply shows the various states as they occur. There is not one phenomenon occurring during the hypnotic state which does not occur either singly or in combination with others, in states which bear no other discoverable relation to that of hypnosis. If you suggest to a man while he is hypnotized that at 12 o'clock on a certain day, six months later, he will go into a hypnotic state, or will perform some act, the probabilities are that on the day and hour stated, he will do so. So will a normal man if you can impress it strongly enough upon his consciousness.

A number of French and German writers have likened this condition to one which occurs when a man, before going to sleep, makes up his mind to awake at a definite hour. Some can do this accurately, while others will wake a half-dozen times or more during the night. (Bernheim.)

A man may be so absorbed in thought that he will not heed anything which is passing around him, and so the analogies might be

traced through every conscious act of our existences, and even the unconscious ones, too.

As has been previously mentioned, men may sustain severe injuries while frightened or while experiencing any great emotion, and be for the time unconscious of them.

When a man is intensely interested his arm may remain in a certain position for an unusual length of time, and he be unconscious of the fact.

Hallucinations and illusions of all kinds may be the result of suggestion, either in the hypnotic state, or they may occur, as is well-known, when the person is otherwise normal. Let me sum up the whole matter by saying that any analysis of the phenomena occurring severally during hypnosis, will fail to throw any light upon the cause of the state. Some writers tell us of double consciousness. Some talk about subconsciousness. I prefer the term subjective consciousness. I have plainly stated in this book, even perhaps have repeated too frequently, the fact that every faculty of the mind may be altered singly or in combination by the hypnotic state. It has been also stated that the susceptibility in this state varies widely in different individuals.

Now let us look at the state from a synthetical point of view. Let us consider what occurs.

As has been said before, it differs according to the method used. We can see a man in a condition of hypnosis first perform imitative acts. We see him blind and deaf at will. He may be unconscious of pain or acutely conscious of it. He may apparently sleep quietly. He may, on the contrary, give evidence of being wide awake. One thing which strikes the observer is this : he obeys the suggestion of the operator no matter how unreasonable or how ludicrous it may be. The man will call himself a woman, or a child, or a broomstick. Even the vasomotor system will, in some subjects, obey the suggestion, as has been said elsewhere. This obedience to any suggestion is the only distinguishing feature of hypnosis. Although no two hypnotized subjects are precisely alike, yet there is a similarity between them.

In all who obey suggestion while hypnotized, we find them not only obeying the command, but acting out in an intense manner the idea suggested by the operator. Some of them claim to be wholly unconscious of what they do. Others do not make this claim and can tell accurately what occurred. Dr. Moll says some of them will write automatically the occurrences transpiring in the hypnotic state while still professing ignorance of them. This is indeed an astonishing condition of the mind. A man closes his eyes and you tell him that he

does not know anything. He immediately says, "I do not," which is the best evidence that he does. He proceeds to obey whatever suggestion is made. Command him to wake up and tell him that he does know something, and he proceeds to wake up and know something. Ask him what has occurred, and he tells you that he does not remember. After he makes this statement give him a pencil and paper, talk with him upon some indifferent subject, and while talking he proceeds to write out on paper what he says he does not know. One may theorize about the storing of memories in various parts of the brain. It will not help him to explain this very paradoxical state of affairs. Answer, if you will, "One may remember a dream only when circumstances call it to mind the next day." It does not fit the case. A man may lay his pipe away and forget where he put it, and some trivial circumstance, by means of association, may cause him to remember where he put it. These are some of the answers in explanation of the phenomena which modern hypnotic theorists give us. These theories do not seem to me to apply. Perhaps the fault is mine. Subjects remember in a subsequent hypnosis events which occurred in a previous one, and which they fail to remember when they are not hypnotized, and claim when questioned that they

know nothing of the occurrences of either. They will, if told to, during the second hypnosis, remember, after awakening, events occurring in both, or will remember some single event and no other. It is not strange, then, that many have denied the very existence of the hypnotic state, but those making such denials must explain the process by which a leg is amputated and the subject professes neither to have felt the pain of the operation nor to have known in any way that it was taking place, and many other equally wonderful phenomena which have taken place. It is not likely that a large number of people would simulate perfect insensibility to such pain for the sake of self-aggrandizement, or of making themselves in some way wonderful. Persons suffering the death-agony would hardly profess to have been unconscious for some hours, and that their pain did not exist unless they at least believed what they were saying. That complexus of conditions termed hypnosis is a reality and the fact that we cannot explain it in no way disproves its existence. Because we do not know the law of chemical affinities, why one element is attracted by another, is no reason why our observations in this direction are erroneous. I shall now endeavor to make clear my own conceptions of the hypnotic state. These conceptions, be it understood, are only tentative.

They may change even before this book goes to press.

I have, in many ways, as have many others, shown the close resemblance between the hypnotic state and many of the states occurring in the disease known as hysteria. I have mentioned before that I believed every individual possessed the capacity of becoming hysterical in a greater or less degree.

One hysterical phenomenon, such as anæsthesia, may occur and all the rest be absent. They may occur in various combinations. Hysteria can be cultivated. So the susceptibility to hypnosis may be increased with each individual. I know from personal experience that I can at will render a part of my body partially anæsthetic. I know that I can bring upon myself at will a state of hypnosis. I have seen this occur in so many ways and under such widely different circumstances, and present such a diversity of appearances, that it has been a marvel to me that medical men have not investigated and studied it more thoroughly. I have seen a man cultivate the power of automatic writing. Another learned to change his personality, while the third would become somnambulic, and the fourth rigid (cataleptic), and the fifth cultivate hallucinations of sense. And so I might enumerate for pages.

These states can be produced either as a re-

sult of the action of the individual's mind upon himself, independently of the suggestion of another, or they may occur as the result of such a suggestion made to him directly by a person or by some association or environment. Let me make myself clear. In the United States alone there are thousands of individuals who believe in spiritualism. They represent all classes, from the most intelligent and cultivated to the most ignorant. In fact, it is astonishing how many people believe, in one way or another, that they either do or have communicated with those who have died, or, as the spiritualists express it, "who have passed to the other side."

At least 90 per cent. of all these persons when sitting in "circles," or, as frequently is the case, around a table, will give evidence of some form of auto-hypnosis. Even the symptoms of what Charcot calls "le grand hypnotisme" occur with great frequency in some persons sitting in "circles." Now, whether communications are held or not with spirits at these times is not the question under discussion in this book. The solving of that question belongs to another department of psychological experiment. What I do state is this, that let any number of persons, say ten, sit together with the expectation of obtaining certain phenomena, if they will observe the proper conditions, there will be some one or more of the following occurrences take

place. In addition to the description of the various sensations, such as feeling an electric current, giddiness, ringing in the ears, sensations of heat and cold, etc., one or more members of the circle will usually become very ecstatic, go into a hypnotic state resembling sleep, write upon paper if a pencil is held in the dark or in the light, or in some other way give evidence by his conduct of being in an unusual condition. Such an assembly does not need to be composed wholly of spiritualists. It is frequently the case that the one professing the most scepticism will be the most profoundly affected. If any one doubts my statement, and if the doubt is due to want of experience in the matter, let him try it for himself.

Assemble any ten people, appoint a definite hour for meeting, sit down quietly, and do not, for the time at least, ridicule anything that occurs. Let all place their hands upon the table, or join hands, or neither, just as they may prefer, and try the experiment for fifteen sittings, and there are very strong probabilities that some of the phenomena mentioned will be obtained. They will of course differ much.

Now, if the susceptibility of the masses to such states as I have described exists to such an extent, it is worthy of being studied and thoroughly understood, if possible. Many persons sitting in a spiritualistic circle cannot be hyp-

notized for the reason that they resist it, if that is any reason. (Many people resist hypnotism and yet can be hypnotized). These same subjects will, however, pass into a state which closely resembles hypnosis even to such an extent as to change their personality, to be either unconscious of pain or intensely conscious of everything occurring around them, and some of them will, like subjects hypnotized in the ordinary way, profess to be ignorant of what occurs while they are in the trance state, as it is termed.

Let us again analyze. We wish to hypnotize a man by fixing his gaze upon a bright object. His whole being is placed in an excited state by the very idea that some one is trying to exercise an influence upon his mind which to him is unusual.

In this way one definite mental state is produced. He may be intensely frightened, or by the concentration of his will he may be made for the time oblivious to everything else. He will as a consequence experience one or more unusual sensations. These intensify his mental activity. This mental activity is then further heightened by the suggestion of the operator. The sensations and the suggestion increase the man's belief that something unusual is occurring and he is told to perform a certain act. First, the impulse of obedience is further in-

tensified by the concentration of his faculties ; secondly, his faith is in its turn heightened again by the unusual occurrences and situations. In this way a circle is established around which his mind swings. His consciousness is turned inward. That is, he is told to think of one part of his body. He becomes oblivious to the rest. This unusual state of mind, from its very intensity, produces, when suggestion is used, motor and sensory disturbances. These heighten his credulity. More and more his attention is focussed in one or another direction. Dr. Bernheim speaks of the focussing of the nervous energy, whatever this may be. As consciousness is concentrated in one direction all other events are ignored by it, and we have as a result a man who is no longer himself. He will act out, as has been described many times before in this work, whatever he is told by the hypnotizer. His faith becomes king of his reason. It will become the slave instead of the master, and different parts of the mind will act independently or together as circumstances may determine. The man is told that he will soon arouse himself, that he is all right, or while in this state some strong impression is firmly implanted in his mind. When he is aroused again the co-ordinate action of the mind is restored. Now the fact that phenomena, which are analogous to many other

mental states, occur in this very interesting complex state, is not, if we look at the subject in this way, surprising.

What is surprising is the fact that such a complexus of conditions can be brought about in a large number of individuals who are otherwise normal, using that term to signify their ordinary natural condition.

The following propositions are made in explanation of my position.

First, that hysteria is an abnormal intensification of, or an inhibition of, some one or all of the parts of the mind as the result of the want of mental balance.

Secondly, that there is a close analogy, if not identity, between the various phenomena occurring during and after hypnosis and those of hysteria.

Thirdly, many persons who were otherwise normal are thrown into a state of hysteria by some extraordinary circumstance, during the whole of their previous lives, they never before having given evidence of possessing such tendencies.

From the analogy previously mentioned, I regard this susceptibility of the masses to the various hypnotic states as a form of hysteria which I term *latent hysteria.* I do not claim that the application of this term is original. If I have read it elsewhere I do not remember

having done so. If the use of the term latent hysteria is incorrect, I shall be glad to ascertain the fact. If it does not help others to understand this state it will doubtless either be because it is incorrect, or has not been clearly stated. If the latter, I trust some one, possibly one of my critics, will put the matter in a clearer light.

M. Richet and a number of other writers, including Charcot, have described in various ways the susceptibility to hypnotism. But none of them, so far as I know, have expressed in the same way that I have here endeavored to, the relation between latent hysteria and the susceptibility to hypnosis.

I am firmly convinced of the fact that a very large majority of the people in all the world are susceptible to one or more of the conditions which I have described. Men rush madly to battle dominated by one idea. They shoot and are shot at by men who have against them, and against whom they have no grievance. Lives are laid down to rectify imaginary wrongs. People in a self-induced hypnotic state degrade the Divine principle of the universe by mistaking their insane ravings and sense-hallucinations for revelations from God. It may be true, too, that in some of these states, powers of whose existence we know nothing, are aroused, and it may be the gift of some to look into another state,

another world. Prophets are not confined to any age. These various states which we call hypnotic, hystero-epileptic, cataleptic, etc., are every one of them complex, composed of many widely different elements. The susceptibility of the human race to these conditions constitutes one of the great social factors in the universe, and, therefore, as I study and witness them, I am the more profoundly impressed from day to day with the gravity of their importance, whatever our ultimate conception of them may be. If they are manifestations of disease, pure and simple, then I pity and wish to relieve the sufferers.

If they are evidence that we possess mental powers of which we are ignorant, I earnestly plead for a more extended knowledge of them. If these states can be used for good and not for evil, let us know how. They are an integral part, or better, they are qualities of the human mind. I have no contempt for the man who believes, while in the ecstatic state, that he has received a blessing from the Divine. I have no ridicule for those who believe that the dark veil of death is parted in these states, and that while in a trance or similar condition, they receive evidence of another and possibly better life. I do not feel that any condition which afflicts the human race should be ignored. If we all possess within us a possibility of induc-

ing a state of disease by will, let us know it. If there is another sense yet to be developed through the process of evolution, let us learn how. If all these hypnotic phenomena, or any of them, give evidence, as is believed in some quarters, that we possessed once a sense perfectly developed, which, through the process of evolution, has been gradually dying away down through the ages, let us catch this wonderful thing before the dark starless robes of eternity forever envelop it in mystery and doubt. If this susceptibility, this thing I call latent hysteria, be a condition of mind which will be removed by evolution, if such a removal be desirable, it will take place. If these qualities live in the human mind, it is because they ought to. If they are not needed, and if they die out, it is best. To the law of the survival of the fittest we must all humbly submit. And yet I would gladly snatch, if I could, some of the gems which are lost with the decadence of certain faculties. I would gladly preserve some of the skeletons of the dragons of primæval times. I would that the face of prehistoric man could have been photographed, and that each primitive thought could have been recorded for the future study of man. I marvel at every grand achievement in history, and shudder at its many black pages.

I seek with interest, within the mind of man,

every thought, every feeling, every hope, every wish, which actuates him. I watch its effects upon his body, affirming but little, doubting much, and absolutely denying nothing. I could write volumes on this subject of latent hysteria, as I term it, for want of a better name.

There is one thing typical of the major part of hypnotic phenomena. This thing stands out and differentiates all of the artificially induced hypnotic states from similar states which occur naturally. I wish to emphasize it, and I hope every reader may understand it. It is this. A man's internal consciousness will, while he is hypnotized, contradict the perceptions of his senses at the will, or better, at the suggestion of the operator. Such a condition occurs in only one other class of mental affections. They are the various extreme hysterical states. Even at the risk of repetition let me again state: First, a profoundly hysterical person may be blind, deaf or anæsthetic, as the result, possibly, of a hyper-excitability of consciousness, plus an idea or suggestion. Certainly this state is one of mental perversion. We see these same phenomena in a lesser degree every day among persons who exaggerate their ordinary sensations. Secondly, these phenomena can be singly or in combination induced by suggestion in a person who is hypnotized.

He will be blind, deaf or anæsthetic, and will reproduce at the suggestion of the operator all these things. Thirdly, when two hysterical persons are together it frequently happens that one receiving the suggestion from the other will have a paralysis on the same side as the first, and will imitate, or better still, will exactly reproduce many times these states, attitudes, gestures, etc., occurring spontaneously in the first one. The hypnotic subject will, at the suggestion of the operator, tell you he feels pain in any part of the body named, and imitate his every look, every tone, and every gesture. It does not seem to me that the analogy could be made clearer, the resemblance closer.

In closing let me say, then, that every man, woman or child who is susceptible to hypnotism, possesses in his or her nature the possibility of becoming in one way or another hysterical. One faculty may act in excess of all the rest, and credulity may sweep from the firmament of the mind the stars of reason and of will. Even individuality itself may be, for the time, banished.

I ask those who wish to study the condition of latent hysteria to simply look about them. One does not need to go abroad to attend the clinics at La Charité or the Salpêtrière to see it. It is within the depths of every human consciousness. It forms a chain of impulses

that runs through the mind of every man from the cradle to the grave. It led the Crusades in the Middle Ages. This latent hysterical condition is the smouldering fire which, once kindled, makes religious wars possible. It is the insane side of every man's nature. Sensual Lust is its queen. Bacchus is its prime minister. Malice and Hatred are its body-guards, the walls of its house consist of Selfishness, its roof of Conceit, its floor of Treachery. This latent hysteria is the one thing that needs to be understood in all of its many possibilities. To it may be attributed many failures in business, many of the strange infatuations which have captured men and women during their lives. It is a smoked glass which, placed in front of the eyes of Reason, bedims the glorious sun of Truth.

As I have given the opinion that latent hysteria constitutes the susceptibility to hypnotism and allied states, the question will be asked, "Is it justifiable to use hypnotism as a remedial agent?" Most assuredly; for it is always justifiable to produce, if necessary, a state of minor disturbance of the nervous system, if great good may be accomplished thereby.

Owing to the susceptibility of hypnotized subjects to suggestion, we may even by suggestion repress this same susceptibility.

If our patients are made to understand that

the hypnotic state is not to be trifled with, they will not, as a rule, at least, submit themselves to needless hypnotizations.

Most persons are made temporarily delirious by taking ether or chloroform, and yet, in a large majority of cases, no harm is done by the use of these drugs.

Nearly every drug in use, as has been said before, will produce a diseased state if it is used to excess ; the same is true of hypnotism. Therefore I hold that, while the susceptibility of the nervous system to hypnotism is possibly in itself a weakness, it, like other diseased states, may be made available for the cure of many profoundly morbid states.

CHAPTER III.

A CONDENSED SKETCH OF THE HISTORY OF HYPNOTISM.

THE origin of man's knowledge of that which now is known by the name of "hypnotism" is lost in antiquity. There are references to the subject in some of the earliest writings now extant. The Ebers Papyrus, which dates back to 1552 B. C., contains mention of the "laying on of hands," in a description of medical methods as practised in Egypt.

The Greeks also made use of similar methods. Vincent gives an account of a bas-relief in the British Museum which was taken from a tomb in Thebes. One man is sitting while another stands at a short distance from him with his hand raised as if making a "pass," so Mr. Vincent considers. I, for one, fail to see how one making "passes" could be represented in bas-relief, and it seems to me more likely that the attitude is one of benediction.

A reference to the virtues of the stroking with the hands is found in Solon. Below is

given a translation of the passage taken from Stanley's "History of Philosophy."

> "The smallest hurts sometimes increase and rage
> More than all art of physic can assuage:
> Sometimes the fury of the worst disease
> The hand by gentle stroking will appease."

There are hints of the same thing in Pliny, Hist. Nat., lib. vii. c. 2, and Martial, bk. iii. ep. 82.

According to Tacitus and Suetonius, the Emperor Vespasian performed many cures by laying on of hands. During the Middle Ages the belief in the virtues of the "royal touch" was very widespread.

It has long been known to the people of the Orient that the hypnotic state can be induced by gazing fixedly at a small object.

In Greece also the sect known as the Omphalopsychics were accustomed to hypnotize themselves by gazing at the umbilicus.

The method of soothsaying by gazing into crystals, which was long practised by the Egyptians, is another evidence of the early use of auto-hypnotism.

It was not until toward the end of the Middle Ages that any systematized theory of the subject of magnetism, as it was then believed to be, appeared. This theory was evolved from the principles of astrology. Many of the most

eminent doctors and philosophers of that time studied this subject. Among these writers may be named Theophrastus Paracelsus, Glocenius, Petrus Pomponatius, Athanasius Kircher, Sir Kenelm Digby, Van Helmont, and a number of others.

Paracelsus, about the year 1530, advanced the theory that the heavenly bodies exert an influence on the bodily health of man. From this theory was developed the belief that men exert an influence upon each other. It was taught by Van Helmont and the Scotchman, Maxwell, that there was a magnetic power in man which could be used beneficially for the cure of disease. Later Santanelli taught the same in Italy. Pomponatius, a Professor of Philosophy at Padua, about the beginning of the sixteenth century, supported a similar view.

John Baptist Van Helmont, the discoverer of laudanum, spirits of hartshorn, the volatile salts, and the aeriform fluids to which he gave the name Gas, wrote on the subject of magnetism. This was about the beginning of the seventeenth century.

His definition of Magnetism is, "That occult power which bodies exert over each other at a distance, whether by attraction or repulsion."

Frederick Anton Mesmer, a doctor of Vienna (1734–1815) was the first to bring the doctrine

of animal magnetism into general notice. He believed in the existence of animal magnetism as a fluid force, but distinguished it from the magnetism of metals. In the year 1775 he sent out a circular letter addressed to a number of the leading academies. In this letter he set forth his belief that animal magnetism existed, and that by means of it one person could exert an influence over another. No attention was paid to his letter except by the Academy of Berlin, which sent him an unfavorable reply.

Mesmer made use of animal magnetism in the practice of medicine, at first by contact, later by using various objects of wood, glass or iron, which he believed could be charged by him with the magnetism.

In 1778 he went to Paris where he constructed his famous "baquet" which he used for the cure of disease. It was a complicated apparatus. It consisted of a tub containing bottles arranged in a particular manner, also powdered glass, iron filings, water, etc. Through the lid passed movable iron rods which could be applied to the bodies of the patients. The patients stood in circles about the "baquet." Soon the influence of the supposed current made itself felt and caused the appearance of various hysterical and convulsionary symptoms, laughter, tears, moans, spasmodic movements, etc. As Mr. Vincent says, these were probably

merely hysterical attacks brought about by the exciting combination of circumstances. Similar phenomena are constantly occurring in spiritualistic circles in this country at the present day.

In the year 1779 Mesmer published a paper entitled, "Memoire sur la decouverte du magnetisme animal," in which he claimed to have discovered a principle which would cure every disease. He sets forth his conclusions in twenty-seven propositions of which the substance is as follows:—

There is a reciprocal action and reaction between the planets, the earth, and animate nature by means of a constant universal fluid, subject to mechanical laws yet unknown. The animal body is directly affected by the insinuation of this agent into the substance of the nerves. It causes in the human bodies properties analogous to those of the magnet, for which reason it is called "Animal Magnetism." This magnetism may be communicated to other bodies, may be increased and reflected by mirrors, communicated, propagated and accumulated, by sound. It may be accumulated, concentrated, and transported. The same rules apply to the opposite virtue. The magnet is susceptible of magnetism and the opposite virtue. The magnet and artificial electricity have, with respect to disease, prop-

erties common to a host of other agents presented to us by nature, and if the use of these has been attended by useful results, they are due to animal magnetism. By the aid of magnetism, the physician enlightened as to the use of medicine, may render its action more perfect, and can provoke and direct salutary crises so as to have them completely under his control.

Mesmer attracted much attention at Paris, where he gained many adherents, but also found many opponents. Prominent among the former was Dr. d'Eslon, one of the most noted scientists of the day.

Although the Faculty of Medicine which investigated Mesmer's claims reported unfavorably, nevertheless, he had a pronounced success in Paris. He replied to the attacks which were made upon him by the Faculty of Medicine, in a paper entitled, "Precis historique des faits relatif au magnetisme animal." The unfairness of the medical profession in Paris finally led him to leave that place, though the Government offered him a pension of 20,000 francs if he would remain. He afterwards came back at the request of his pupils.

In 1784 the Government appointed two commissions to examine Mesmer's claims. One was composed of the members of the Academy of Sciences and the Faculty of Medicine.

Benjamin Franklin and Lavoisier were also of the number. The other was made up of members of the Royal Academy of Medicine. Both commissions reported unfavorably. The substance of the conclusions arrived at by the Academy of Science was as follows: that the magnetic fluid did not exist and consequently had no beneficial effects; that the various hysterical and violent symptoms observed in patients under public treatment were due to pressure, contact, and excitement of imagination; finally, that the contact and repeated excitement of the imagination might become hurtful, and that all treatment in public in which magnetism is employed must in the end be attended with evil results.

One man, however, maintained Mesmer's claims, and published a private report in which he argued that certain of the effects produced could not be explained by imagination alone. This man was Laurent de Jussieu, the eminent botanist. He withdrew from the commission of the Royal Society of Medicine, on account of their hostile attitude toward Mesmer.

Mesmer died in 1815, and was buried in Mörsburg, where a monument was erected in his honor by the physicians of Berlin.

Much has been written about Mesmer which is in a sneering and contemptuous tone, by certain writers who, because they did not be-

lieve in his theories, saw fit to attack his private character. In view of this ungenerous practice I take pleasure in quoting what Mr. Vincent says in regard to the above-mentioned writers.

"It seems ever the habit of the shallow scientist to plume himself on the more accurate theories which have been provided for him by the progress of knowledge and of science, and then, having been fed with a limited historical *pabulum*, to turn and talk lightly, and with an air of the most superior condescension, of the weakness and follies of those but for whose patient labors our modern theories would probably be non-existent."

Following Mesmer came the Marquis Chastenet de Puységur, who took up with enthusiasm the study of the hypnotic phenomena, and to whom is due the discovery of the somnambulic state.

He made use of hypnotism in the cure of disease, and with such success that he was unable to accommodate all his patients, and resorted to Mesmer's plan of magnetizing a tree, which became widely known as "De Puységur's tree."

The success of De Puységur was the signal for the formation of a number of societies in France for the purpose of investigating the magnetic phenomena.

Among the contemporaries of De Puységur,

Pététin is worthy of mention. He described the state of catalepsy and the phenomena of sense-transference.

This new version of the doctrine of magnetism was introduced into Germany about the same time that it appeared in France. Its headquarters were for some time at Bremen. Afterwards it spread through the provinces of the upper Rhine. Although there was at first a good deal of opposition to animal magnetism, it was finally taken up by the scientific world. In Austria, however, the practice of magnetism was entirely forbidden. Among those who investigated the subject in Germany may be mentioned Wienholt, Bicker, Albers, Heineken, Pezold, Selle, Schelling, Kieser, Treviranus, Kluge.

In the year 1812 the Prussian Government interested itself in animal magnetism and sent Wolfart to Mesmer at Frauenfeld to investigate. He became thoroughly interested, and when he returned introduced the practice in the hospital at Berlin.

In the year 1814–15 a new interest was added to the study of the subject by Deleuze, who published a book on the subject, and by the Abbé Faria, who came from India. He demonstrated that there was no unseen force or fluid, but that the cause of the phenomena was wholly subjective. Indeed, he made use of the method of

suggestion in the experiments which he performed.

From this time that conception of the nature of hypnosis from which later the suggestion theory was evolved, began to gain ground. The investigations of Dr. Bertrand and Gen. Noizet in 1820 helped on its way this theory, which had its birth in the demonstrations of Abbé Faria. In 1820 experiments were carried on by Du Potet at the Hotel Dieu and at the Salpêtrière. Soon after this the Academy of Medicine, through the exertions of Foissac, was again persuaded to investigate the question. A commission was appointed who, after five years of research, submitted their report.

The report gave a description of the methods used to induce the magnetic connection, the time required to produce it, etc. There were enumerated the phenomena of somnambulism, anæsthesia, loss of memory and the various other symptoms usually accompanying the hypnotic state. Finally the use of magnetism as a therapeutic agent is mentioned, and the statement is made that it should be allowed a place within the circle of medical sciences, and that, consequently, physicians only should practise it.

This report, so different from the result of the first investigation, did more to confuse opinions in regard to magnetism than to clear them up,

and finally, in 1837, another commission was appointed to examine the experiments of a magnetizer named Berna. The report of this commission was decidedly unfavorable to animal magnetism.

Soon after this, Burdin, a member of the Academy, in order to test the clairvoyant powers which had been claimed for the hypnotic subjects, offered a prize of 3,000 francs to any one who could read a given writing without the aid of eyes. Several candidates tried for the prize, but all failed of obtaining it. After this the Academy refused to pay any further attention to the question of Magnetism. While these investigations were going on in France the subject was receiving considerable attention in Germany. After about 1830, however, the belief in the magnetism theory began to decline rapidly in both Germany and France. Siemers of Hamburg, and Hensler and Ennemoser in Bavaria, still continued to support it. Among others who interested themselves in the study of the magnetic phenomena should be mentioned Most, Herschel, Fischer, Carus, Pfnor, Schopenhauer.

As the belief in the genuineness of the magnetic phenomena declined, men of science became very unwilling to have their names connected with the subject. The chief cause which operated to bring the study and practice of

magnetism into ill-repute was the eagerness with which showmen and every description of fakir and charlatan seized upon this new science as a novel method of making money out of human credulity. Abuses of this kind have been, until quite recently, a serious hindrance to the progress of the investigation of the hypnotic phenomena.

In England hypnotism was not recognized until long after it was well known in France and Germany. Two physicians of London, Elliotson and Ashburner, took up the subject, but accomplished little more than injury to their own professional reputations.

However, the investigations of Dr. Braid of Manchester, in 1841, mark an important stage in the history of hypnotism. It was he who first established the suggestion theory on a scientific basis. To him also is due the name "hypnotism." Braid came to the conclusion that hypnotism and mesmerism were analogous states, but not identical, and he left magnetism as a state independent of hypnotism. The result of Braid's experiments was that he became convinced that there was no magnetic fluid or force emanating from the operator to the subject, and that the hypnotic state was caused by physiological modifications of the nervous system. He considered that the hypnotic state was purely subjective, and that sleep was

brought about by the fatigue of the eyelids and the concentration of the attention on a single idea, consequent upon fixing the gaze on a small object. Braid was supported in his conclusions by Carpenter, the physiologist, and by a number of others.

At about this time, or a little later, an American named Grimes took up the study of hypnotism and, independently of Braid, arrived at the same conclusions. Among other American investigators should be mentioned Dods, Stone, and Darling.

These writers termed the phenomena of hypnosis "electro-biological." Contemporaneous with these was the French writer, Durand de Gros, who wrote under the pseudonym of Dr. Phillips.

In 1850 the doctrines of Braid were introduced in Bordeaux by Dr. Azam. He made a number of experiments and published the results in the "*Archives de Médecine.*"

Interest in the theory of suggestion now began to become more general. Numerous experiments were made by Velpeau, Follin, Guerineau, Demarquay, and others, to test the value of hypnotism in surgery.

It was used with some success in performing operations without pain; but as it was not known then that anæsthesia could be produced by suggestion, it was supposed that only

the deeper stages of hypnosis were of value in surgery.

Laségue discovered, in 1865, that catalepsy could be produced by closing the eyes of the patient. Dr. Liébault of Nancy, after having spent several years in studying the hypnotic phenomena, in 1866, published a book entitled, "*Du sommeil et des états analogues considérés surtout au point de vue de l'action du moral sur le physique.*" This work is of considerable importance in the history of the progress of therapeutic suggestion. Liébault considered hypnotic sleep to be identical with natural sleep; that they are both due to the focussing of the attention and the nervous force upon the idea of sleep. In ordinary sleep, however, the subject is in relation with himself only, while in hypnosis the subject falls asleep with his thought fixed in relationship with the hypnotizer.

In 1873 experiments in hypnotizing animals were made by Czermak and some others. Symptoms resembling the ordinary hypnotic state were produced in birds, lobsters, pigeons, rabbits, etc. Preyer, however, considered this to be a state of paralysis due to fear, and gave it the name "cataplexia."

In 1878 Charcot began his experiments at the Salpêtrière. He found that catalepsy with anæsthesia could be produced by fixing the

gaze upon a bright light. He also produced somnambulism from lethargy by rubbing the top of the patient's head.

About this time interest was again aroused in Germany by Hansen, the Danish hypnotizer, Weinhold, Heidenhain, Ruhlmann, and others. Rumpf, Schneider, Preyer, and others brought forward various theories, physiological, chemical and psycho-physical.

The experiments at the Salpêtrière did not attract a great deal of attention in France, but after the Medical School of Nancy, including Liébault, Bernheim, Beaunis, Liégeois, took up the subject of hypnotism, interest in it became more general.

The various theories have finally become sifted down to the Neurosis theory, which is the one supported at the Salpêtrière, and the Suggestion theory of the school of Nancy, and the contest between these two schools is still going on.

How, then, does hypnotism stand at the present day? We find many physicians of great scientific attainment using it successfully for the cure of disease. Leading psychologists and physiologists in every civilized country in the world are studying it. Only a very few persons deny its existence.

Mr. Ernest Hart, writing in the October *Century* of the present year, dwells at length upon what he terms the "Eternal Gullibility

of Humanity." His conclusions are mainly drawn from the confessions of an individual who simulated the hypnotic state in public for the purpose of obtaining money. This fact is not new. It has been dwelt upon by the press in this country and abroad for a number of years, and is well understood by the intelligent public. Mr. Hart does not deny the existence of the hypnotic state.

The British Society for Psychical Research is still conducting earnest and painstaking investigations of hypnotism and many allied states. Writers of fiction, such as Crawford and Du Maurier, still find in it themes with which to embellish their novels.

If I may judge by my own personal experience, and by what I read generally, the public is still ignorant of the real nature of hypnotism. How much or how little hypnotism will be used in the future for the cure of disease, time alone can determine.

CHAPTER IV.

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